

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 9, 2003, 22:13:29 ; Search time 85 Seconds
(without alignments)
179.268 Million cell updates/sec

Title: US-09-474-980B-221

Perfect score: 529

Sequence: 1 ALSGPCQLWSLTLVSVELGL.....DRHWQRPLQLSAAACGGG 96

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

al number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_19Jun03.*

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24: /SIDSI/gcgdata/geneseq/geneseq-embl/AA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Score	Match	Length	DB	ID	Description
1	529	100.0	96	20	AA16731		Human persephin pr
2	529	100.0	156	20	AA16727		Human pre-pro pers
3	529	100.0	156	21	AA162038		Human glial cell d
4	529	100.0	156	23	ABBB2392		Human persephin po
5	529	100.0	156	23	ABJ15130		Neublastin related
6	504	95.3	91	20	AA16732		WO9914235 Seq ID N
7	492	93.0	89	20	AA16733		Human persephin pr
8	492	93.0	89	22	AA60964		Human persephin.
9	492	93.0	89	22	AAU03924		Human substituted

10	490	92.6	96	22	AAU03951	Human PAP-F2ac ful
11	471.5	89.1	97	22	AAU03950	Human PNP-F2ac ful
12	460.5	87.1	97	22	AAU03949	Human PGP-F2ac ful
13	453	85.6	89	22	AAU03948	Human PAP-F2ac pol
14	439	83.0	96	18	AAW30066	Mature mouse perse
15	439	83.0	96	20	AA16723	Mouse mature perse
16	439	83.0	96	20	AA16662	WO9914235 Seq ID N
17	439	83.0	96	22	AAU03955	Mouse persephin po
18	439	83.0	134	18	AAW30067	Mouse persephin.
19	439	83.0	134	20	AA16663	WO9914235 Seq ID N
20	439	83.0	142	20	AA16681	WO9914235 Seq ID N
21	439	83.0	156	20	AA16721	Murine pre-pro per
22	439	83.0	185	18	AAW26680	Mature mouse perse
23	439	83.0	185	20	AA16692	WO9914235 Seq ID N
24	434.5	82.1	90	22	AAU03947	Human PNP-F2ac pol
25	433	81.9	96	20	AA16726	WO9914235 Seq ID N
26	433	81.9	156	20	AA16724	Rat mature perseph
27	433	81.9	185	18	AAW26681	Mature rat perseph
28	433	81.9	185	20	AA16694	WO9914235 Seq ID N
29	430	80.3	91	20	AAU04453	Murine mutant P-hf
30	425	80.3	91	20	AA16668	WO9914235 Seq ID N
31	423.5	80.1	90	22	AAU03946	Human PGP-F2ac pol
32	423	80.0	91	18	AAW30068	Mature rat perseph
33	423	80.0	91	20	AA16665	Rat persephin prot
34	413	78.1	89	18	AAW30064	Mature mouse perse
35	413	78.1	89	20	AA16661	Murine persephin s
36	413	78.1	89	22	AAU03925	Murine substituted
37	411	77.7	89	18	AAW30065	Mature rat perseph
38	411	77.7	89	20	AA16664	Rat persephin prot
39	411	77.7	89	22	AAU03926	Rat substituted pe
40	393	74.3	108	22	AAU03938	Murine His-FLAG-PA
41	388	73.3	89	22	AAU03939	Murine PAP-F2ac po
42	379.5	71.7	109	22	AAU03936	Murine His-FLAG-PN
43	374.5	70.8	90	22	AAU03937	Murine PNP-F2ac po
44	364.5	68.9	109	22	AAU03934	Murine His-FLAG-PG
45	363.5	68.7	96	18	AAW30075	Persephin-neurturi

ALIGNMENTS

RESULT 1
AA16731
ID AA16731 standard; Peptide: 96 AA.

XX AC AA16731;

XX DT 17-AUG-1999 (first entry)

XX DE Human persephin protein.

XX OS Homo sapiens.

XX PN WO9914235-A1.

XX PD 25-MAR-1999.

XX PF 15-SEP-1998; 98WO-US19163.

XX PR 16-SEP-1997; 97US-0931858.

XX PA (UNIW) UNIV WASHINGTON.

XX PI Desauvage F, Johnson EM, Klein R, Kotzbauer PT;

XX PI Lampe PA, Milbrandt JD;

XX XX

Growth factor; GF; persephin; neuron growth; cellular degeneration;
peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke;
Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma;
brain injury; spinal cord injury; nervous system tumour; infection;
multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin;
metabolic disease; diabetes; renal dysfunction; neurturin.

DR WPI; 1999-244023/20.
 XX New isolated persephin growth factor nucleic acids used to, e.g.
 XX promote neuronal growth
 XX N-PSDB; AAX60507.
 XX
 PS Claim 3; Page 205-206; 222pp; English.
 XX
 CC The invention relates to a novel isolated and purified growth factor (GF)
 CC that comprises persephin or a fragment or a conservatively substituted
 CC variant. The persephin GF polypeptides can promote the survival and
 CC growth of neurons and non-neuronal cells. The persephin GF polypeptides
 CC or polynucleotides can be used for preventing or treating cellular
 CC degeneration or insufficiency, e.g. neuronal degeneration resulting from
 CC peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
 CC disease, Parkinson's disease, Huntington's disease, ischemic stroke,
 CC acute brain injury, acute spinal cord injury, nervous system tumours,
 CC multiple sclerosis, or infection, hematopoietic cell degeneration or
 CC insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
 CC stem-cell insufficiencies, cardiac muscle degeneration or insufficiency
 CC resulting from cardiomyopathy or congestive heart failure. They can also
 CC be used for treating e.g. peripheral nerve trauma or injury, exposure to
 CC neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
 CC and damage caused by infectious agents. The GF can also be used for
 CC promoting the growth and/or differentiation of a cell in a culture
 CC medium. The antisense polynucleotides can be used for treating a disease
 CC condition mediated by expression of persephin by a population of cells.
 CC The products can also be used for detection and diagnosis.
 XX
 SQ Sequence 96 AA;
 Query Match 100.0%; Score 529; DB 20; Length 96;
 Best Local Similarity 100.0%; Pred. No. 5.2e-55;
 Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1-ALSGPCQLWSLTLSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGQGRAHG 60
 Db 1-ALSGPCQLWSLTLSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGQGRAHG 60
 QY 61-GPCCRPTRYTDVAFLLDRHRWQLPQLSAAACGCGG 96
 Db 61-GPCCRPTRYTDVAFLLDRHRWQLPQLSAAACGCGG 96
 RESULT 2
 AAY16727
 ID AAY16727 standard; Peptide; 156 AA.
 XX AAY16727;
 AC
 DE 17-AUG-1999 (first entry)
 XX Human pre-pro persephin.
 KW Growth factor; GF; persephin; neuron growth; cellular degeneration;
 KW peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma;
 KW brain injury; spinal cord injury; nervous system tumour; infection;
 KW multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin;
 KW metabolic disease; diabetes; renal dysfunction; neurturin.
 XX
 OS Homo sapiens.
 XX
 PN W09914235-A1.
 XX
 PD 25-MAR-1999.
 XX
 PF 15-SEP-1998; 98WO-0519163.
 XX
 PR 16-SEP-1997; 97US-0931858.
 XX
 PA (UNIW) UNIV WASHINGTON.
 XX
 PI Desauvage F, Johnson EM, Klein R, Kotzbauer PT;

PI Lampe PA, Milbrandt JD;
 XX
 DR WPI; 1999-244023/20.
 DR N-PSDB; AAX60507.
 XX
 XX New isolated persephin growth factor nucleic acids used to, e.g.
 PT promote neuronal growth
 PT
 XX Claim 5a; Page 204; 222pp; English.
 PS
 CC The invention relates to a novel isolated and purified growth factor (GF)
 CC that comprises persephin or a fragment or a conservatively substituted
 CC variant. The persephin GF polypeptides can promote the survival and
 CC growth of neurons and non-neuronal cells. The persephin GF polypeptides
 CC or polynucleotides can be used for preventing or treating cellular
 CC degeneration or insufficiency, e.g. neuronal degeneration resulting from
 CC peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
 CC disease, Parkinson's disease, Huntington's disease, ischemic stroke,
 CC acute brain injury, acute spinal cord injury, nervous system tumours,
 CC multiple sclerosis, or infection, hematopoietic cell degeneration or
 CC insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
 CC stem-cell insufficiencies, cardiac muscle degeneration or insufficiency
 CC resulting from cardiomyopathy or congestive heart failure. They can also
 CC be used for treating e.g. peripheral nerve trauma or injury, exposure to
 CC neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
 CC and damage caused by infectious agents. The GF can also be used for
 CC promoting the growth and/or differentiation of a cell in a culture
 CC medium. The antisense polynucleotides can be used for treating a disease
 CC condition mediated by expression of persephin by a population of cells.
 CC The products can also be used for detection and diagnosis.
 XX
 SQ Sequence 156 AA;
 Query Match 100.0%; Score 529; DB 20; Length 156;
 Best Local Similarity 100.0%; Pred. No. 9e-55;
 Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1-ALSGPCQLWSLTLSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGQGRAHG 60
 Db 61-ALSGPCQLWSLTLSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGQGRAHG 120
 QY 61-GPCCRPTRYTDVAFLLDRHRWQLPQLSAAACGCGG 96
 Db 121-GPCCRPTRYTDVAFLLDRHRWQLPQLSAAACGCGG 156
 RESULT 3
 AAY92038
 ID AAY92038 standard; Protein; 156 AA.
 XX
 AC AAY92038;
 XX
 DT 19-JUL-2000 (first entry)
 DE Human glial cell derived factor (GDNF), Persephin subunit.
 XX
 KW human glial cell derived factor; GDNF; Persephin; CKGF; mutant;
 KW cystine knot growth factor; hairpin loop; infertility.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 1..69 /note= "optionally mutated to increase electrostatic
 FT interaction between beta hairpin structure and
 FT a receptor"
 FT Domain 70..89 /label= beta_hairpin_loop_1
 FT /note= "mutant optionally comprises one or more
 FT substitutions in these residues"
 FT Misc-difference 90..127 /note= "optionally mutated to increase electrostatic
 FT interaction between beta hairpin structure and

XX	NBN; neubiastin; pain; neubiastin; analgesic; vaccine; gene therapy;
KW	human; GDNF; persephin.
XX	
OS	Homo sapiens.
XX	
PN	WO200278730-A2.
XX	
PD	10-OCT-2002.
XX	
PF	28-FEB-2002; 2002WO-US06388.
XX	
XX	28-MAR-2001; 2001US-287554P.
PR	28-MAR-2001; 2001US-0820421.
XX	
XX	(BIOJ) BIOGEN INC.
PA	
XX	
PI	Sah DWY;
XX	
DR	WPI; 2002-740922/80.
XX	
PT	Treating neuropathic pain in a subject comprises administering a
PT	formulation comprising a neubiastin polypeptide
XX	
XX	Disclosure; Page 6-7; 69pp; English.
XX	
CC	The invention relates to treating neuropathic pain in a subject and
CC	involves administering a formulation comprising a neubiastin (NBN)
CC	polypeptide. The method is useful for treating, preventing or delaying
CC	neuropathic pain. The present sequence represents a human persephin
CC	polypeptide, a GDNF (glial cell line-derived neurotrophic factor ligand)
CC	subfamily member.
XX	
SQ	Sequence 156 AA;
	Query Match 100.0%; Score 529; DB 23; Length 156;
	Best Local Similarity 100.0%; Pred. NO. 9e-55;
	Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY	1 ALSGPOLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHG LALARLOGGGAHG 60
Db	61 ALSGPOLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHG LALARLOGGGAHG 120
QY	61 GPCRPRTRYTDVAFLLDRHRWQLPQLSAAACGGG 96
Db	121 GPCRPRTRYTDVAFLLDRHRWQLPQLSAAACGGG 156
RESULT 5	
ABJ15130	
ID	ABJ15130 standard; Protein; 156 AA.
XX	
AC	ABJ15130;
XX	
DT	
DE	19-DEC-2002 (first entry)
XX	
DE	Neubiastin related persephin protein SEQ ID NO 50.
XX	
KW	Nootropic; neuroprotective; antiparkinsonian; anticonvulsant; analgesic;
KW	tranquilliser; antidiabetic; ophthalmological; neurodegenerative disorder;
KW	neubiastin; ischemic neuronal damage; traumatic brain injury; diabetes;
KW	peripheral neuropathy; neuropathic pain; Alzheimer's disease; glaucoma;
KW	Huntington's disease; Parkinson's disease; amyotrophic lateral sclerosis;
KW	memory impairment; renal disease.
XX	
OS	Homo sapiens.
XX	
PN	WO200272826-A2.
XX	
PD	19-SEP-2002.
XX	
XX	12-MAR-2002; 2002WO-EP02691.
XX	

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PR 12-MAR-2001; 2001US-0804615.
XX (BIOJ ) BIOGEN INC.
PA (NSGE-) NS GENE AS.
XX
XX Sah DWY, Johansen TE, Rossomando A;
XX PI WPI; 2002-713515/77.
XX DR
XX
XX New truncated neublastin polypeptides lacking one or more
PT amino-terminal amino acids of a mature neublastin polypeptide useful
PT for treating neurodegenerative disorders, e.g. peripheral neuropathy,
PT neuropathic pain, brain injury
XX
XX Example 4; Page 55; 138pp; English.
XX
XX The invention relates to a truncated neublastin polypeptide comprising an
CC amino acid terminus that lacks one or more amino-terminal amino acids of
CC a mature neublastin polypeptide. The polypeptides and nucleic acids are
CC useful for treating neurodegenerative disorders such as ischemic neuronal
CC damage, traumatic brain injury, peripheral neuropathy, neuropathic pain,
CC Alzheimer's disease, Huntington's disease, Parkinson's disease, renal
CC amyotrophic lateral sclerosis, memory impairment, diabetes, renal
CC diseases, or glaucoma by moderating metabolism, growth, differentiation
CC or survival of a nerve or neuronal cell. This sequence is a neublastin
CC related protein of the invention.
XX
XX Sequence 156 AA;
SQ
Query Match 100.0%; Score 529; DB 23; Length 156;
Best Local Similarity 100.0%; Pred. No. 9e-55; Indels 0; Gaps 0;
Matches 96; Conservative 0; Mismatches 0;
QY 1 ALSGPQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHG 60
DB 61 ALSGPQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHG 120
QY 61 GPCCRPTRYTDVAFLLDRHRWQRLPOLSAACGCGG 96
DB 121 GPCCRPTRYTDVAFLLDRHRWQRLPOLSAACGCGG 156

RESULT 6
AAY16732
ID AAY16732 standard; Peptide; 91 AA.
XX
AC AAY16732;
XX
17-AUG-1999 (first entry)
W09914235 Seq ID No: 221.
XX
XX Growth factor; GF; persephin; neuron growth; cellular degeneration;
KW peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma;
KW brain injury; spinal cord injury; nervous system tumour; infection;
KW multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin;
KW metabolic disease; diabetes; renal dysfunction; neurturin.
XX
OS Unidentified.
XX
XX W09914235-A1.
XX
XX 25-MAR-1999.
XX
XX 15-SEP-1998; 98WO-US19163.
XX
XX 16-SEP-1997; 97US-0931858.
XX
XX (UNIW ) UNIV WASHINGTON.
XX
XX Desauvage F, Johnson EM, Klein R, Kotzbauer PT,
XX Lampe PA, Milbrandt JD;

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XX WPI; 1999-244023/20.
XX
XX New isolated persephin growth factor nucleic acids used to, e.g.
PT promote neuronal growth
XX
XX Disclosure; Page 206; 222pp; English.
XX
XX The invention relates to a novel isolated and purified growth factor (GF)
CC that comprises persephin or a fragment or a conservatively substituted
CC variant. The persephin GF polypeptides can promote the survival and
CC growth of neurons and non-neuronal cells. The persephin GF polypeptides
CC or polynucleotides can be used for preventing or treating cellular
CC degeneration or insufficiency, e.g. neuronal degeneration resulting from
CC peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
CC disease, Parkinson's disease, Huntington's disease, ischemic stroke,
CC acute brain injury, acute spinal cord injury, nervous system tumours,
CC multiple sclerosis, or infection, hematopoietic cell degeneration or
CC insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
CC stem-cell insufficiencies, cardiac muscle degeneration or insufficiency
CC resulting from cardiomyopathy or congestive heart failure. They can also
CC be used for treating e.g. peripheral nerve trauma or injury, exposure to
CC neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
CC and damage caused by infectious agents. The GF can also be used for
CC promoting the growth and/or differentiation of a cell in a culture
CC medium. The antisense polynucleotides can be used for treating a disease
CC condition mediated by expression of persephin by a population of cells.
CC The products can also be used for detection and diagnosis.
XX
XX Sequence 91 AA;
SQ
Query Match 95.3%; Score 504; DB 20; Length 91;
Best Local Similarity 100.0%; Pred. No. 4.5e-52; Indels 0; Gaps 0;
Matches 91; Conservative 0; Mismatches 0;
QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGPPCCR 65
DB 1 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGPPCCR 60
QY 66 PTRYTDVAFLLDRHRWQRLPOLSAACGCGG 96
DB 61 PTRYTDVAFLLDRHRWQRLPOLSAACGCGG 91

RESULT 7
AAY16733
ID AAY16733 standard; Peptide; 89 AA.
XX
AC AAY16733;
XX
17-AUG-1999 (first entry)
XX
DE Human persephin protein.
XX
XX Growth factor; GF; persephin; neuron growth; cellular degeneration;
KW peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma;
KW brain injury; spinal cord injury; nervous system tumour; infection;
KW multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin;
KW metabolic disease; diabetes; renal dysfunction; neurturin.
XX
XX Homo sapiens.
XX
XX W09914235-A1.
XX
XX 25-MAR-1999.
XX
XX 15-SEP-1998; 98WO-US19163.
XX
XX 16-SEP-1997; 97US-0931858.
XX
XX (UNIW ) UNIV WASHINGTON.
XX
XX

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PI Desauvage F, Johnson EM, Klein R, Kotzbauer PT;
XX Lampe PA, Milbrandt JD;

XX WPI: 1999-244023/20.

XX New isolated persephin growth factor nucleic acids used to, e.g.
PT promote neuronal growth

XX Claim 2; Page 206-207; 222pp; English.

XX The invention relates to a novel isolated and purified growth factor (GF)
CC that comprises persephin or a fragment or a conservatively substituted
CC variant. The persephin GF polypeptides can promote the survival and
CC growth of neurons and non-neuronal cells. The persephin GF polypeptides
CC or polynucleotides can be used for preventing or treating cellular
CC degeneration or insufficiency, e.g. neuronal degeneration resulting from
CC peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
CC disease, Parkinson's disease, Huntington's disease, ischemic stroke,
CC acute brain injury, acute spinal cord injury, nervous system tumours,
CC multiple sclerosis, or infection, hematopoietic cell degeneration or
CC insufficiency resulting from eosinopenia, anemias, thrombocytopaenia, or
CC stem-cell insufficiencies, cardiac muscle degeneration or insufficiency
CC resulting from cardiomyopathy or congestive heart failure. They can also
CC be used for treating e.g. peripheral nerve trauma or injury, exposure to
CC neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
CC and damage caused by infectious agents. The GF can also be used for
CC promoting the growth and/or differentiation of a cell in a culture
CC medium. The antisense polynucleotides can be used for treating a disease
CC condition mediated by expression of persephin by a population of cells.
XX The products can also be used for detection and diagnosis.

SQ Sequence 89 AA;

Query Match 93.0%; Score 492; DB 20; Length 89;
Best Local Similarity 100.0%; Pred. No. 1.2e-50;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGGPCCR 65

DB 1 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGGPCCR 60

OY 66 PTRYDVAFLDDRHRWQLPQLSAAACGC 94

DB 61 PTRYDVAFLDDRHRWQLPQLSAAACGC 89

RESULT 8
AAB60964

AAB60964 standard; Protein; 89 AA.

AC AAB60964;

DT 10-DEC-2001 (first entry)

DE Human persephin.

XX Human; glial cell line-derived growth factor; GDNF; corneal defect;
KW epidermal healing; wound healing; wound healing disorder; scarring;
KW gene therapy; neurturin; persephin; artemin.

OS Homo sapiens.

PN WO200130375-A2.

PD 03-MAY-2001.

XX 30-OCT-2000; 2000WO-EP10674.

PR 29-OCT-1999; 99EP-0121597.

XX (BIOP-) BIOPHARM GES BIOTECHNOLOGISCHEN ENTWICKL.

PI Hanke M, Kruse F, Paulista M, Pohl J;

XX WPI: 2001-316290/33.

XX Use of glial cell line-derived growth factor for epidermal and stromal
PT wound healing, and treating wound healing or scarring disorders,
PT particularly for treating corneal defects

XX Disclosure; Fig 1; 60pp; English.

XX The present invention describes the use of glial cell line-derived growth
CC factor (GDNF) or a derivative in the manufacture of pharmaceutical
CC compositions for epidermal and wound healing, the treatment of epidermal
CC and stromal wound healing disorders and scarring disorders. In
CC particular, they are useful for treating corneal defects. Alternatives to
CC GDNF are neurturin, persephin and artemin. The present sequence is the
XX human persephin protein.

SQ Sequence 89 AA;

Query Match 93.0%; Score 492; DB 22; Length 89;
Best Local Similarity 100.0%; Pred. No. 1.2e-50;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGGPCCR 65

DB 1 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHGGPCCR 60

OY 66 PTRYDVAFLDDRHRWQLPQLSAAACGC 94

DB 61 PTRYDVAFLDDRHRWQLPQLSAAACGC 89

RESULT 9
AAU03924

ID AAU03924 standard; Protein; 89 AA.

XX AC AAU03924;

DT 23-OCT-2001 (first entry)

XX Human substituted persephin polypeptide.

XX Persephin; F2a; F2c; GDNF; neurturin; artemin; human; mouse; rat; AIDS;
KW growth factor receptor alpha-RET protein tyrosine kinase; GFRalpha1-RET;
KW trophic support; peripheral neuropathy; amyotrophic lateral sclerosis;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; diabetes;
KW acquired immunodeficiency syndrome; ischaemic stroke; acute brain injury;
KW acute spinal cord injury; multiple sclerosis; nervous system tumour;
KW neuroblastoma; enteric disease; idiopathic constipation; eosinopaenia;
KW basopaenia; lymphopaenia; monocytopenia; neutropenia; anaemia;
KW cardiac muscle degeneration; congestive heart failure; thrombocytopaenia.

OS Homo sapiens.

PN WO200147946-A2.

XX 05-JUL-2001.

PD 21-DEC-2000; 2000WO-US34852.

PR 28-DEC-1999; 99US-0473551.

XX (UNIW) UNIV WASHINGTON.

XX Milbrandt JD, Baloh RH;

XX WPI: 2001-425618/45.

XX New growth factor that activates growth factor receptor alpha1-Ret
PT protein-tyrosine kinase, for providing trophic support to a mammalian
PT cell and producing differentiation of a mammalian cell in a patient -
XX Claim 4; Page 45; 73pp; English.

XX The sequence represents a human persephin protein, which can have
 CC substituted residues in its F2a and/or F2c regions. The substitutions are
 CC from the F2a and F2c regions of the proteins GDNF, neurturin and artemin,
 CC from humans, mice or rats. This type of protein activates the growth
 CC factor receptor alphas-Ret protein-tyrosine kinase (GFRalpha-Ret), but
 CC does not substantially activate GFRalpha2-Ret or GFRalpha3-Ret. The
 CC growth factors and nucleic acids encoding them are useful for providing
 CC trophic support to a mammalian cell and/or for producing differentiation
 CC of a mammalian cell, in a patient suffering from peripheral neuropathy,
 CC anyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease,
 CC Huntington's disease, diabetes, acquired immunodeficiency syndrome
 CC (AIDS), ischaemic stroke, acute brain injury, acute spinal cord injury,
 CC multiple sclerosis, nervous system tumours (e.g. neuroblastomas), or
 CC enteric diseases such as idiopathic constipation. The sequences are also
 CC useful for preventing or treating cellular degeneration or insufficiency
 CC in an individual, suffering from eosinopenia, basopenia, lymphopenia,
 CC monocytopenia, neutropenia, anaemia, thrombocytopenia, cardiac muscle
 CC degeneration, or congestive heart failure. The growth factors are also
 CC useful for promoting the survival of peripheral and central neuronal
 CC populations in vivo or in vitro.

Sequence 89 AA;

Query Match 93.0%; Score 492; DB 22; Length 89;
 Best Local Similarity 100.0%; Pred. No. 1.2e-50;
 Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 CQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGGLARLQGGRAHGPCCR 65
 DB 1 CQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGGLARLQGGRAHGPCCR 60
 QY 66 PTRYTDVAFLLDRHRWQRLPQLSAAACGC 94
 DB 61 PTRYTDVAFLLDRHRWQRLPQLSAAACGC 89

RESULT 10
 AAU03951
 ID AAU03951 standard; Protein: 96 AA.

XX AAU03951;

DT 23-OCT-2001 (first entry)

XX Human PAP-F2ac full-length polypeptide.

XX Persephin; F2a; F2c; GDNF; neurturin; artemin; human; mouse; rat; AIDS;
 KW growth factor receptor alphas-Ret protein tyrosine kinase; GFRalpha-Ret;
 KW trophic support; peripheral neuropathy; anyotrophic lateral sclerosis;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; diabetes;
 KW acquired immunodeficiency syndrome; ischaemic stroke; acute brain injury;
 KW acute spinal cord injury; multiple sclerosis; nervous system tumour;
 KW neuroblastoma; enteric disease; idiopathic constipation; eosinopenia;
 KW basopenia; lymphopenia; monocytopenia; neutropenia; anaemia;
 KW cardiac muscle degeneration; congestive heart failure; thrombocytopenia;
 KW mutant; mutein.

XX Chimeric - Homo sapiens.

XX Key Location/Qualifiers
 XX Region 68...72 "Human artemin F2a region"
 XX Region 82...88
 XX Region /note= "Human artemin F2c region"

XX WO200147946-A2.

XX 05-JUL-2001.

XX 21-DEC-2000; 2000WO-US34852.

XX 28-DEC-1999; 99US-0473551.

XX (UNIW) UNIV WASHINGTON.
 XX PA Milbrandt JD, Baloh RH;
 XX PI WPI; 2001-425618/45.
 XX DR New growth factor that activates growth factor receptor alphas-Ret
 XX PT protein-tyrosine kinase, for providing trophic support to a mammalian
 XX PT cell and producing differentiation of a mammalian cell in a patient -
 XX PS Claim 8; Page 48; 73pp; English.

XX The sequence represents a human persephin full-length protein, whereby
 CC the F2a and F2c regions have amino acid substitutions from the F2a and
 CC F2c regions of artemin protein. Persephin can have substitutions from
 CC the F2a and F2c regions of the proteins GDNF, neurturin and artemin, from
 CC humans, mice or rats. This type of protein activates the growth factor
 CC receptor alphas-Ret protein-tyrosine kinase (GFRalpha-Ret), but does not
 CC substantially activate GFRalpha2-Ret or GFRalpha3-Ret. The growth factors
 CC and nucleic acids encoding them are useful for providing trophic support
 CC to a mammalian cell and/or for producing differentiation of a mammalian
 CC cell, in a patient suffering from peripheral neuropathy, amyotrophic
 CC lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's
 CC disease, diabetes, acquired immunodeficiency syndrome (AIDS), ischaemic
 CC stroke, acute brain injury, acute spinal cord injury, multiple sclerosis,
 CC nervous system tumours (e.g. neuroblastomas), or enteric diseases such as
 CC idiopathic constipation. The sequences are also useful for preventing or
 CC treating cellular degeneration or insufficiency in an individual,
 CC suffering from eosinopenia, basopenia, lymphopenia, monocytopenia,
 CC neutropenia, anaemia, thrombocytopenia, cardiac muscle degeneration, or
 CC congestive heart failure. The growth factors are also useful for
 CC promoting the survival of peripheral and central neuronal populations in
 CC vivo or in vitro.

XX Sequence 96 AA;

Query Match 92.6%; Score 490; DB 22; Length 96;
 Best Local Similarity 92.7%; Pred. No. 2.2e-50;
 Matches 89; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGGLARLQGGRAHG 60
 DB 1 ALSGPCQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGGLARLQGGRAHG 60

QY 61 GPCCRTRYTDVAFLLDRHRWQRLPQLSAAACGC 96
 DB 61 GPCCRTRYTDVAFLLDRHRWQRLPQLSAAACGC 96

RESULT 11
 AAU03950

ID AAU03950 standard; Protein: 97 AA.

XX AAU03950;

XX 23-OCT-2001 (first entry)

XX Human PNP-F2ac full-length polypeptide.

XX Persephin; F2a; F2c; GDNF; neurturin; artemin; human; mouse; rat; AIDS;
 KW growth factor receptor alphas-Ret protein tyrosine kinase; GFRalpha-Ret;
 KW trophic support; peripheral neuropathy; anyotrophic lateral sclerosis;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; diabetes;
 KW acquired immunodeficiency syndrome; ischaemic stroke; acute brain injury;
 KW acute spinal cord injury; multiple sclerosis; nervous system tumour;
 KW neuroblastoma; enteric disease; idiopathic constipation; eosinopenia;
 KW basopenia; lymphopenia; monocytopenia; neutropenia; anaemia;
 KW cardiac muscle degeneration; congestive heart failure; thrombocytopenia;
 KW mutant; mutein.

XX Chimeric - Homo sapiens.

KW	Persephin; F2a; F2c; GDNF; neurturin; artemin; human; mouse; rat; AIDS; growth factor receptor alphas; RET protein tyrosine kinase; GFRA1; RET; trophic support; peripheral neuropathy; amyotrophic lateral sclerosis; Alzheimer's disease; Parkinson's disease; Huntington's disease; diabetes; acquired immunodeficiency syndrome; ischaemic stroke; acute brain injury; acute spinal cord injury; multiple sclerosis; nervous system tumour; neuroblastoma; enteric disease; idiopathic constipation; eosinopenia; basopenia; lymphopenia; monocytopenia; neutropenia; anaemia; cardiac muscle degeneration; congestive heart failure; thrombocytopenia; mutant; mutin.
XX	
XX	Chimeric - Homo sapiens.
OS	
Key	Location/Qualifiers
Region	68..72
FT	/note= "Human GDNF F2a region"
FT	82..88
FT	/note= "Human GDNF F2c region"
XX	
WO	200147946-A2.
PN	
PD	05-JUL-2001.
XX	
PF	21-DEC-2000; 2000WO-US34852.
XX	
PR	28-DEC-1999; 99US-0473551.
XX	
PA	(UNIW) UNIV WASHINGTON.
PI	Milbrandt JD, Baloh RH;
XX	
DR	WPI; 2001-425618/45.
XX	
PT	New growth factor that activates growth factor receptor alphas; RET protein-tyrosine kinase, for providing trophic support to a mammalian cell and producing differentiation of a mammalian cell in a patient -
PT	Claim 8; Page 48; 73pp; English.
XX	
CC	The sequence represents a human persephin full-length protein, whereby the F2a and F2c regions have amino acid substitutions from the F2a and F2c regions of GDNF protein. Persephin can have substitutions from the F2a and F2c regions of the proteins GDNF, neurturin and artemin, from humans, mice or rats. This type of protein activates the growth factor receptor alphas; RET protein-tyrosine kinase (GFRA1; RET), but does not substantially activate GFRA1; RET or GFRA1; RET. The growth factors and nucleic acids encoding them are useful for providing trophic support to a mammalian cell and/or for producing differentiation of a mammalian cell, in a patient suffering from peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's disease, diabetes, acquired immunodeficiency syndrome (AIDS), ischaemic stroke, acute brain injury, acute spinal cord injury, multiple sclerosis, nervous system tumours (e.g. neuroblastomas), or enteric diseases such as idiopathic constipation. The sequences are also useful for preventing or treating cellular degeneration or insufficiency in an individual suffering from eosinopenia, basopenia, lymphopenia, monocytopenia, neutropenia, anaemia, thrombocytopenia, cardiac muscle degeneration, or congestive heart failure. The growth factors are also useful for promoting the survival of peripheral and central neuronal populations in vivo or in vitro.
XX	
SQ	Sequence 97 AA;
Query Match	87.1%; Score 460.5; DB 22; Length 97;
Best Local Similarity	89.7%; Pred. No. 7.2e-47;
Matches	87; Conservative 3; Mismatches 6; Indels 1; Gaps 1;
QY	1 ALSGPCQLWSITLSVAELGLGYASEEKVIFRYCAGSPRGARTQHGLATLARGOQRAHG 60
DB	1 ALSGPCQLWSITLSVAELGLGYASEEKVIFRYCAGSPRGARTQHGLATLARGOQRAHG 60
QY	61 GPCCRPTRY-TDVAFLDPRHWRQBLPOLSAAACGCG 96

DB 61 GPCRPTAFDDDDVAFLDDRHRHILKHSAAACGCG 97

RESULT 13
AAU03948
ID AAU03948 standard; Protein; 89 AA.
XX
AC AAU03948;
XX
DT 23-OCT-2001 (first entry)
XX
DE Human PAP-F2ac polypeptide.
XX
KW Persephin; F2a; F2c; GDNF; neurturin; human; mouse; rat; AIDS;
KW growth factor receptor alpha1-RET protein tyrosine kinase; GFRA1phal-RET;
KW trophic support; peripheral neuropathy; amyotrophic lateral sclerosis;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; diabetes;
KW acquired immunodeficiency syndrome; ischaemic stroke; acute brain injury;
KW acute spinal cord injury; multiple sclerosis; nervous system tumour;
KW neuroblastoma; enteric disease; idiopathic constipation; eosinopaenia;
KW basopaenia; lymphopaenia; monocytopenia; neutropaenia; anaemia;
KW cardiac muscle degeneration; congestive heart failure; thrombocytopaenia;
mutant; mutein.

XX
OS Chimeric - Homo sapiens.
XX
FH Key Location/Qualifiers
FT Region 63..67 /note= "Human artemin F2a region"
FT Region 77..83 /note= "Human artemin F2c region"
FT
XX WO200147946-A2.
XX
PD 05-JUL-2001.
XX
PF 21-DEC-2000; 2000WO-US34852.
XX
PR 28-DEC-1999; 99US-0473551.
XX (UNIW) UNIV WASHINGTON.
XX Milbrandt JD, Baloh RH;
XX WPI; 2001-425618/45.
XX
PT New growth factor that activates growth factor receptor alpha1-RET
PT protein-tyrosine kinase, for providing trophic support to a mammalian
PT cell and producing differentiation of a mammalian cell in a patient -

Claim 7; Page 48; 73pp; English.

XX The sequence represents a human persephin protein, whereby the F2a and
XX F2c regions have amino acid substitutions from the F2a and F2c regions of
XX artemin protein. Persephin can have substitutions from the F2a and F2c
XX regions of the proteins GDNF, neurturin and artemin, from humans, mice or
XX rats. This type of protein activates the growth factor receptor
XX alpha1-RET protein-tyrosine kinase (GFRA1phal-RET), but does not
XX substantially activate GFRA1phal2-RET or GFRA1phal3-RET. The growth factors
XX and nucleic acids encoding them are useful for providing trophic support
XX to a mammalian cell and/or for producing differentiation of a mammalian
XX cell, in a patient suffering from peripheral neuropathy, amyotrophic
XX lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's
XX disease, diabetes, acquired immunodeficiency syndrome (AIDS), ischaemic
XX stroke, acute brain injury, acute spinal cord injury, multiple sclerosis,
XX nervous system tumours (e.g. neuroblastomas), or enteric diseases such as
XX idiopathic constipation. The sequences are also useful for preventing or
XX treating cellular degeneration or insufficiency in an individual,
XX suffering from eosinopaenia, basopaenia, lymphopaenia, monocytopenia,
XX neutropaenia, anaemia, thrombocytopaenia, cardiac muscle degeneration, or
XX congestive heart failure. The growth factors are also useful for
XX promoting the survival of peripheral and central neuronal populations in
XX vivo or in vitro.

XX
SQ Sequence 89 AA;
Query Match 85.6%; Score 453; DB 22; Length 89;
Best Local Similarity 92.1%; Pred. No. 5.1e-46;
Matches 82; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
QY 6 COLWSLTLSVAELGLGYASEKVIYFYCAGSCPRGARTQHGCLARLQGGRAHGGPCCR 65
DB 1 COLWSLTLSVAELGLGYASEKVIYFYCAGSCPRGARTQHGCLARLQGGRAHGGPCCR 60
QY 66 PTRTDAFLDDRHRWQLPOLSAACGC 94
DB 61 PTRTDAFLDDRHRWQLPOLSAACGC 89
RESULT 14
AAW30066
ID AAW30066 standard; Protein; 96 AA.
XX
AC AAW30066;
XX
DT 27-MAR-1998 (first entry)
XX
DE Mature mouse persephin.
XX
KW Persephin; neurturin; glial-derived neurotrophic factor; GDNF;
KW neuronal degeneration; haematopoietic cell degeneration;
KW cardiac muscle degeneration; amyotrophic lateral sclerosis;
KW neuropathy; Alzheimer's disease; Parkinson's disease; stroke;
KW Huntington's disease; nervous system tumour; multiple sclerosis;
KW eosinopenia; basopenia; lymphopenia; monocytopenia; neutropenia;
KW anaemia; thrombocytopenia; stem cell insufficiency; cardiomyopathy;
KW congestive heart failure; therapy; mouse.
XX
OS Mus musculus.
XX
FH Key Location/Qualifiers
FT Misc-difference 10 /note= "O-glycosylated"
FT Misc-difference 12 /note= "O-glycosylated"
FT Misc-difference 24 /note= "O-glycosylated"
FT Misc-difference 36 /note= "O-glycosylated"
FT Misc-difference 43 /note= "O-glycosylated"
FT Misc-difference 46 /note= "O-glycosylated"
FT Misc-difference 67 /note= "O-glycosylated"
FT Misc-difference 68 /note= "O-glycosylated"
FT Misc-difference 73 /note= "O-glycosylated"
FT Misc-difference 88 /note= "O-glycosylated"
XX WO9733911-A1.
XX
PD 18-SEP-1997.
XX
PF 14-MAR-1997; 97WO-US03461.
XX
PR 14-MAR-1996; 96US-0615944.
XX
PA (UNIW) UNIV WASHINGTON.
XX Johnson EM, Kotzbauer PT, Lampe PA, Milbrandt JD;
XX WPI; 1997-470818/43.
XX
DR N-PSDB; AAT90761.


```
XX GDNF-neurturin family related growth factor, Persephin - used to
PT prevent or treat cellular, neuronal or non-neuronal, degeneration or
PT insufficiency
XX
PS Claim 3; Page 151; 228pp; English.
XX
CC This polypeptide comprises mature mouse persephin, a novel growth
CC factor and member of the glial-derived neurotrophic factor-
CC neurturin family. Recombinant mature persephin can be expressed
CC in host cells utilising an isolated nucleic acid sequence (see
CC AAT90761). Persephin polypeptides, and DNA sequences encoding them,
CC can be used in claimed methods to prevent or treat cellular
CC degeneration or insufficiency, such as neuronal degeneration
CC resulting from peripheral neuropathy, amyotrophic lateral
CC sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's
CC disease, ischemic stroke, acute brain or spinal cord injury,
CC nervous system tumours, multiple sclerosis and infection. The
CC cellular degeneration or insufficiency may also comprise
CC haematopoietic cell degeneration or insufficiency resulting from
CC eosinopenia, basopenia, lymphopenia, monocytopenia, neutropenia,
CC anaemia, thrombocytopenia or stem-cell insufficiencies. Also
CC included is cardiac muscle degeneration or insufficiency arising
CC from cardiomyopathy or congestive heart failure. Persephin can be
CC added to a cell culture medium to promote growth and/or
CC differentiation.
XX
SQ Sequence 96 AA;
Query Match 83.0%; Score 439; DB 18; Length 96;
Best Local Similarity 81.2%; Pred. No. 2.5e-44;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;
QY 1 ALSGPCQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLARLQGGRAHG 60
DB 1 ALAGSCLRLWSLTLPVAELGLGYASEEKVIFRYCAGSCPQEARQTQHSVLRLRGRG 60
QY 61 GPCCRPTRYTDVAFLLDRHRWQRLPQLSAAACGCGG 96
DB 61 RPCCQPTSYADVTFLLDDQHWWQQLPQLSAAACGCGG 96
RESULT 15
AAV16723
ID AAV16723 standard; Peptide; 96 AA.
XX
AC AAV16723;
17-AUG-1999 (first entry)
DE Mouse mature persephin protein.
XX
KW Growth factor; GF; persephin; neuron growth; cellular degeneration;
KW peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma;
KW brain injury; spinal cord injury; nervous system tumour; infection;
KW multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin;
KW metabolic disease; diabetes; renal dysfunction; neurturin.
XX
OS Mus sp.
XX
PN W09914235-A1.
XX
PD 25-MAR-1999.
XX
PF 15-SEP-1998; 98WO-US19163.
XX
PR 16-SEP-1997; 97US-0931858.
XX
PA (UNIW ) UNIV WASHINGTON.
XX
PI Desauvage F, Johnson EM, Klein R, Kotzbauer PT;
PI Lampe PA, Milbrandt JD;
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XX WPI; 1999-244023/20.
XX
PT New isolated persephin growth factor nucleic acids used to, e.g.
PT promote neuronal growth
XX
PS Claim 3; Page 193; 222pp; English.
XX
CC The invention relates to a novel isolated and purified growth factor (GF)
CC that comprises persephin or a fragment or a conservatively substituted
CC variant. The persephin GF polypeptides can promote the survival and
CC growth of neurons and non-neuronal cells. The persephin GF polypeptides
CC or polynucleotides can be used for preventing or treating cellular
CC degeneration or insufficiency, e.g. neuronal degeneration resulting from
CC peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
CC disease, Parkinson's disease, Huntington's disease, ischemic stroke,
CC acute brain injury, acute spinal cord injury, nervous system tumours,
CC multiple sclerosis, or infection, hematopoietic cell degeneration or
CC insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
CC stem-cell insufficiencies, cardiac muscle degeneration or insufficiency
CC resulting from cardiomyopathy or congestive heart failure. They can also
CC be used for treating e.g. peripheral nerve trauma or injury, exposure to
CC neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
CC and damage caused by infectious agents. The GF can also be used for
CC promoting the growth and/or differentiation of a cell in a culture
CC medium. The antisense polynucleotides can be used for treating a disease
CC condition mediated by expression of persephin by a population of cells.
CC The products can also be used for detection and diagnosis.
XX
SQ Sequence 96 AA;
Query Match 83.0%; Score 439; DB 20; Length 96;
Best Local Similarity 81.2%; Pred. No. 2.5e-44;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;
QY 1 ALSGPCQLWSLTSLVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLARLQGGRAHG 60
DB 1 ALAGSCLRLWSLTLPVAELGLGYASEEKVIFRYCAGSCPQEARQTQHSVLRLRGRG 60
QY 61 GPCCRPTRYTDVAFLLDRHRWQRLPQLSAAACGCGG 96
DB 61 RPCCQPTSYADVTFLLDDQHWWQQLPQLSAAACGCGG 96
Search completed: September 9, 2003, 22:22:28
Job time : 86 secs
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Result No.	Score	Query Match	Length	DB	ID	Description
1	219.5	41.5	197	2	T47159	hypothetical prote
2	173	32.7	211	2	T49686	glial cell line-de
3	172	32.5	211	2	A37499	glial cell line-de
4	169	31.9	211	2	B37499	glial cell line-de
5	110.5	20.9	555	1	S20100	mullerian inhibiti
6	108.5	20.5	575	1	WFB0M	mullerian inhibiti
7	105.5	19.9	575	2	T11753	mullerian inhibiti
8	104.5	19.8	560	1	WFBUM	mullerian inhibiti
9	101	19.1	553	1	A42499	mullerian inhibiti
10	94	17.8	373	2	PM0042	activin - fruit fl
11	83.5	15.8	115	2	PM0506	activin beta B-2 c
12	83.5	15.8	393	2	IS0103	activin beta B - z
13	83.5	15.8	644	2	JC5119	anti-mullerian hor
14	81.5	15.4	255	2	I48235	inhibin beta-B cha
15	81.5	15.4	411	2	B41398	inhibin beta-B cha
16	81	15.3	352	2	JC2466	inhibin beta-B cha
17	80.5	15.2	115	2	PM0505	inhibin beta B-1 c
18	80.5	15.2	349	1	WFPGBB	inhibin beta-B cha
19	80.5	15.2	407	1	A40150	inhibin beta-B cha
20	80.5	15.2	408	2	S50899	inhibin beta-B cha
21	79.5	15.0	370	2	I31199	betab inhibin prec
22	79	14.9	207	2	S37618	activin beta B sub
23	79	14.9	510	2	A54798	vgr protein - rat
24	79	14.9	513	1	BMH06	Vg-1-related prote
25	78.5	14.8	412	2	A34939	bone morphogenetic
26	77	14.6	455	2	A43918	transforming growt
27	77	14.6	461	2	S24208	TGF-beta-related p
28	75.5	14.3	410	2	A41397	SPDVR1 protein - s
29	75.5	14.3	412	2	A36169	transforming growt
30	75.5	14.3	412	2	A36169	transforming growt

A: Accession: JC6518

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 9, 2003, 22:14:04 ; Search time 23 Seconds
(without alignments)
196.285 Million cell updates/sec

Title: US-09-474-980B-221

Perfect score: 529

Sequence: 1 ALSGPCQLWSLTLSVLAELGL.....DRHRWQLPOLSAACCGG 96

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

al number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_41.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	529	100.0	156	1 PSPN_HUMAN	O60542 homo sapien
2	439	83.0	156	1 PSPN_MOUSE	O70300 mus musculus
3	433	81.9	156	1 PSPN_RAT	O70301 rattus norv
4	219.5	41.5	197	1 NRTN_HUMAN	O99748 homo sapien
5	216.5	40.9	195	1 NRTN_MOUSE	P97463 mus musculus
6	173	32.7	211	1 GDNF_MOUSE	P48540 mus musculus
7	172	32.5	211	1 GDNF_RAT	O07731 rattus norv
8	169	31.9	211	1 GDNF_HUMAN	P39905 homo sapien
9	110.5	20.9	555	1 MIS_MOUSE	P27106 mus musculus
10	108.5	20.5	575	1 MIS_BOVIN	O3972 bos taurus
11	105.5	19.9	575	1 MIS_PIG	P79295 sus scrofa
12	104.5	19.8	560	1 MIS_HUMAN	P03971 homo sapien
13	101	19.1	553	1 MIS_RAT	P49000 rattus norv
14	100.5	19.0	303	1 GDFE_RAT	O92016 rattus norv
15	94.5	17.9	303	1 GDFE_MOUSE	O92017 mus musculus
16	94	17.8	946	1 IHB_MOUSE	O61643 drosophila
17	86.5	16.4	405	1 GDFB_MOUSE	O92144 mus musculus
18	86.5	16.4	407	1 GDFB_HUMAN	O95390 homo sapien
19	84.5	16.0	375	1 GDFB_PAPHA	O18828 papio hamad
20	82	15.5	395	1 UNIV_STRPU	P48970 stronglyloce
21	81.5	15.4	255	1 IHB_MOUSE	O04999 mus musculus
22	81.5	15.4	374	1 GDFB_BRARE	O42222 brachydanio
23	81	15.3	352	1 IHB_MOUSE	P55103 homo sapien
24	80.5	15.2	349	1 IHB_PIG	O04088 sus scrofa
25	80.5	15.2	375	1 GDFB_BOVIN	O18836 bos taurus
26	80.5	15.2	375	1 GDFB_CHICK	O42220 gallus gall
27	80.5	15.2	375	1 GDFB_HUMAN	O14793 homo sapien
28	80.5	15.2	375	1 GDFB_MELGA	O42221 meleagris 9
29	80.5	15.2	375	1 GDFB_PIG	O18831 sus scrofa
30	80.5	15.2	376	1 GDFB_MOUSE	O08689 mus musculus
31	80.5	15.2	376	1 GDFB_RAT	O35312 rattus norv
32	80.5	15.2	391	1 IHB_CHICK	P27093 gallus gall
33	80.5	15.2	407	1 IHB_HUMAN	P09529 homo sapien

34	80.5	15.2	408	1 IHB_BOVIN	P42917 bos taurus
35	79	14.9	207	1 BMP6_RAT	Q04906 rattus norv
36	79	14.9	436	1 60A_DROVI	Q24735 drosophila
37	79	14.9	510	1 BMP6_MOUSE	P20722 mus musculus
38	79	14.9	513	1 BMP6_HUMAN	P22004 homo sapien
39	78.5	14.8	412	1 TGF3_CHICK	P16047 gallus gall
40	77	14.6	351	1 IHB_MOUSE	O9WUK5 rattus norv
41	77	14.6	455	1 60A_DROME	P27091 drosophila
42	77	14.6	461	1 DVRI_STRPU	P48969 stronglyloce
43	76.5	14.5	375	1 GDF8_SHEEP	O18830 ovls aries
44	75.5	14.3	410	1 TGF3_MOUSE	P17125 mus musculus
45	75.5	14.3	412	1 TGF3_HUMAN	P10600 homo sapien

ALIGNMENTS

RESULT 1
ID PSPN_HUMAN STANDARD; PRT; 156 AA.
AC O60542;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Persephin precursor (PSP).
GN PSPN.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98150950; PubMed=9491986;
RA Milbrandt J., de Sauvage F.J., Fahrner T.J., Baloh R.H., Leitner M.L.,
RA Tansey M.G., Lampe P.A., Heuckeroth R.O., Kotsbauer P.T.,
RA Simburger K.S., Golden J.P., Davies J.A., Vejsada R., Kato A.C.,
RA Hynes M., Sherman D., Nishimura M., Wang L.-C., Vandlen R., Moffat B.,
RA Klein R.D., Poulsen K., Gray C., Garces A., Henderson C.E.,
RA Phillips H.S., Johnson E.M.;
RT "Persephin, a novel neurotrophic factor related to GDNF and
neurturin";
RL Neuron 20:245-253(1998).
CC -!- FUNCTION: EXHIBITS NEUROTROPHIC ACTIVITY ON MESENCEPHALIC
DOPAMINERGIC AND MOTOR NEURONS.
CC -!- SUBUNIT: Homodimer; disulfide-linked (By similarity).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. GDNF SUBFAMILY.
CC -----
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or send an email to license@isb-sib.ch).
CC -----
DR EMBL; AF040962; AAC39640.1; --
DR HSSP; Q07731; IAGQ.
DR Genew; HGNC:9579; PSPN.
DR MIM; 602921; --
DR GO; GO:0007417; P:central nervous system development; TAS.
DR InterPro; IPR002400; GF_cysknot.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR SMART; SM00204; TGFb; 1.
DR PROSITE; PS00250; TGF_BETA_1; FALSE_NEG.
KW Growth factor; Signal.
FT SIGNAL 1 21
FT CHAIN 22 156
FT DISULFID 66 124
FT DISULFID 93 152
FT DISULFID 97 154
FT BY SIMILARITY.
FT BY SIMILARITY.
FT BY SIMILARITY.

```

FT  DISULFID 123 123 INTERCHAIN (BY SIMILARITY).
SQ  SEQUENCE 156 AA; 16600 MW; 6547751653A7044A CRC64;

Query Match
Best Local Similarity 100.0%; Score 529; DB 1; Length 156;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTSLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGALARLQGGGRAHG 60
    |||||
DB 61 ALSGPCQLWSLTSLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGALARLQGGGRAHG 120
    |||||

QY 61 GPCPRTRYTDVAFDDRRHWRQLPQLSAAACGGG 96
    |||||
DB 121 GPCPRTRYTDVAFDDRRHWRQLPQLSAAACGGG 156
    |||||

RESULT 2
PSPN_MOUSE
ID  PSPN_MOUSE STANDARD; PRT; 156 AA.
AC  070300;
    30-MAY-2000 (Rel. 39, Created)
    30-MAY-2000 (Rel. 39, Last sequence update)
    16-OCT-2001 (Rel. 40, Last annotation update)
DE  Persephin precursor (PSP).
GN  PSPN.
OS  Mus musculus (Mouse).
OC  Eukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX  NCBI_TaxID=10090;
RN  [1]
RP  SEQUENCE FROM N.A.
RC  STRAIN=129/SVJ;
RX  MEDLINE=98150950; PubMed=9491986;
RA  Milbrandt J., de Sauvage F.J., Fahrner T.J., Baloh R.H., Leitner M.L.,
RA  Tansey M.G., Lampe P.A., Heuckeroth R.O., Kotzbauer P.T.,
RA  Simburger K.S., Golden J.P., Davies J.A., Vejsada R., Kato A.C.,
RA  Hynes M., Sherman D., Nishimura M., Wang L.-C., Vandlen R., Moffat B.,
RA  Klein R.D., Poulsen K., Gray C., Garces A., Henderson C.E.,
RA  Phillips H.S., Johnson E.M.;
RA  "Persephin, a novel neurotrophic factor related to GDNF and
RT  neurturin.";
RL  Neuron 20:245-253(1998).
CC  [1] FUNCTION: EXHIBITS NEUROTROPHIC ACTIVITY ON MESENCEPHALIC
CC  DOPAMINERGIC AND MOTOR NEURONS.
CC  [1] SUBUNIT: Homodimer; disulfide-linked (By similarity).
CC  [1] SUBCELLULAR LOCATION: Secreted.
CC  [1] SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. GDNF SUBFAMILY.
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CC  or send an email to license@isb-sib.ch).
CC  -----
CC  EMBL; AF040960; AAC40057.1; -.
CC  HSP; Q07731; IAGO.
CC  MG; MG1201684; Pspn.
CC  GO; GO:0005615; C:extracellular space; IDA.
CC  GO; GO:0001658; P:ureteric bud branching; IDA.
CC  InterPro; IPR002400; GF_cysknot.
CC  InterPro; IPR001839; TGFb.
CC  Pfam; PF00019; TGF-beta; 1.
CC  PRINTS; PR00438; GFCYSKNOT.
CC  SMART; SM00204; TGFb; 1.
CC  PROSITE; PS00250; TGF_BETA_1; FALSE_NEG.
CC  Growth factor; Signal.
CC  SIGNAL 1 21
CC  CHAIN 22 156
CC  DISULFID 66 124
CC  BY SIMILARITY.
CC  DISULFID 93 152
CC  BY SIMILARITY.
CC  DISULFID 97 154
    BY SIMILARITY.

```

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FT  DISULFID 123 123 INTERCHAIN (BY SIMILARITY).
SQ  SEQUENCE 156 AA; 17030 MW; 7DC6DD98132E041B CRC64;

Query Match
Best Local Similarity 83.0%; Score 439; DB 1; Length 156;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTSLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGALARLQGGGRAHG 60
    |||||
DB 61 ALSGCRLWSLTSLPVAELGLGVASEEKVIFRYCAGSCPEARTQHSVLARLGRGRAHG 120
    |||||

QY 61 GPCPRTRYTDVAFDDRRHWRQLPQLSAAACGGG 96
    |||||
DB 121 RPPCQPTSYADVTFLDDQHHWQLPQLSAAACGGG 156
    |||||

RESULT 3
PSPN_RAT
ID  PSPN_RAT STANDARD; PRT; 156 AA.
AC  070301;
    30-MAY-2000 (Rel. 39, Created)
    30-MAY-2000 (Rel. 39, Last sequence update)
    16-OCT-2001 (Rel. 40, Last annotation update)
DE  Persephin precursor (PSP).
GN  PSPN.
OS  Rattus norvegicus (Rat).
OC  Eukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX  NCBI_TaxID=10116;
RN  [1]
RP  SEQUENCE FROM N.A.
RX  MEDLINE=98150950; PubMed=9491986;
RA  Milbrandt J., de Sauvage F.J., Fahrner T.J., Baloh R.H., Leitner M.L.,
RA  Tansey M.G., Lampe P.A., Heuckeroth R.O., Kotzbauer P.T.,
RA  Simburger K.S., Golden J.P., Davies J.A., Vejsada R., Kato A.C.,
RA  Hynes M., Sherman D., Nishimura M., Wang L.-C., Vandlen R., Moffat B.,
RA  Klein R.D., Poulsen K., Gray C., Garces A., Henderson C.E.,
RA  Phillips H.S., Johnson E.M.;
RA  "Persephin, a novel neurotrophic factor related to GDNF and
RT  neurturin.";
RL  Neuron 20:245-253(1998).
CC  [2]
CC  SEQUENCE OF 1-78 FROM N.A.
CC  STRAIN=Sprague-Dawley; TISSUE=Pons;
CC  MEDLINE=98374044; PubMed=9710270;
CC  Jaszi J., Farkas L.M., Galter D., Reuss B., Strelau J., Unsicker K.,
CC  Krieglstein K.;
CC  "GDNF-related factor persephin is widely distributed throughout the
CC  nervous system.";
CC  J. Neurosci. Res. 53:494-501(1998).
CC  [1] FUNCTION: EXHIBITS NEUROTROPHIC ACTIVITY ON MESENCEPHALIC
CC  DOPAMINERGIC AND MOTOR NEURONS.
CC  [1] SUBUNIT: Homodimer; disulfide-linked (By similarity).
CC  [1] SUBCELLULAR LOCATION: Secreted.
CC  [1] SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. GDNF SUBFAMILY.
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CC  -----
CC  EMBL; AF040961; AAC40058.1; -.
CC  EMBL; AJ005169; CAA06410.1; -.
CC  HSP; Q07731; IAGO.
CC  InterPro; IPR002400; GF_cysknot.
CC  InterPro; IPR001839; TGFb.
CC  Pfam; PF00019; TGF-beta; 1.
CC  PRINTS; PR00438; GFCYSKNOT.
CC  SMART; SM00204; TGFb; 1.
CC  PROSITE; PS00250; TGF_BETA_1; FALSE_NEG.

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CC -|- SUBUNIT: Homodimer; disulfide-linked.
CC -|- TISSUE SPECIFICITY: WIDESPREAD DISTRIBUTION.
CC -|- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. GDNF SUBFAMILY.
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CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; U78109; AAC52954.1; --
CC HSP; Q07731; IAGQ.
CC MGD; MGI:108417; Nrtn.
CC InterPro; IPR001839; TGFb.
CC Pfam; PF00019; TGF-beta; 1.
CC SMART; SM00204; TGFb; 1.
CC PROSITE; PS00250; TGF_BETA_1; FALSE_NEG.
CC Growth factor; Signal.
CC SIGNAL 1 19 POTENTIAL.
CC CHAIN 20 95 BY SIMILARITY.
CC FT DISULFID 101 163 NEURTURIN.
CC FT DISULFID 128 192 BY SIMILARITY.
CC FT DISULFID 132 194 BY SIMILARITY.
CC FT DISULFID 162 162 INTERCHAIN (BY SIMILARITY).
CC SQ SSQUENCE 195 AA; 22219 MW; ABE21BB35D417448 CRC64;
CC -----
Query Match 40.9%; Score 216.5; DB 1; Length 195;
Best Local Similarity 49.0%; Pred. No. 2e-17;
Matches 47; Conservative 11; Mismatches 31; Indels 7; Gaps 3;
QY 5 PCQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALRLQ-----GQGRAH 59
DB 100 PCGLRELVRSVSELGLGYTSDEVFLRYCAGACEAIRI-YDGLRLRQRVRERAR 158
QY 60 GGPCRPRTYD-VAFEDDRHRWQRLPQLSAACGC 94
DB 159 AHPCRCPTAYEDVSFLDVHSRYHTLQELSARECAC 194
RESULT 6
GDNF_MOUSE STANDARD; PRT; 211 AA.
AC P48540; O09058; P70446; P97919; P97920;
DT 01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Glial cell line-derived neurotrophic factor precursor.
GN GDNF.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
RC STRAIN=C57BL/10J; TISSUE=Brain;
RA Wang F., Too H.P.;
RL Submitted (OCT-1995) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=ICR; TISSUE=Dorsal root ganglion;
RX MEDLINE=95379105; PubMed=7650763;
RA Watabe K., Fukuda T., Tanaka J., Honda H., Toyohara K., Sakai O.;
RT "Spontaneously immortalized adult mouse Schwann cells secrete
RT autocrine and paracrine growth-promoting activities.";
RL J. Neurosci. Res. 41:279-290(1995).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=129/SVJ;
RA Hellmich H., Kos L., Cho E.S., Mahon K.A., Zimmer A.;

```

```

RL Submitted (OCT-1995) to the EMBL/GenBank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RA Matsushita N., Fujita Y., Nagatsu T., Kiuchi K.;
RL Submitted (OCT-1996) to the EMBL/GenBank/DBJ databases.
CC -|- FUNCTION: NEUROTROPHIC FACTOR THAT ENHANCES SURVIVAL AND
CC MORPHOLOGICAL DIFFERENTIATION OF DOPAMINERGIC NEURONS AND
CC INCREASES THEIR HIGH-AFFINITY DOPAMINE UPTAKE.
CC -|- SUBUNIT: Homodimer; disulfide-linked.
CC -|- SUBCELLULAR LOCATION: Secreted.
CC -|- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1;
CC IsoId=P48540-1; Sequence=Displayed;
CC Name=2;
CC IsoId=P48540-2; Sequence=VSP_006421;
CC -|- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. GDNF SUBFAMILY.
CC -----
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CC -----
CC EMBL; U37459; AAB18672.1; ALT_INIT.
CC EMBL; U66195; AAB07463.1; ALT_INIT.
CC EMBL; U75532; AAB18343.1; ALT_INIT.
CC EMBL; D49921; BAA08660.1; --
CC EMBL; U36449; AAB52953.1; --
CC EMBL; D88264; BAA13566.1; ALT_INIT.
CC EMBL; D88352; BAB12221.1; --
CC EMBL; D88351; BAB12221.1; JOINED.
CC PIR; I49686; I49686.
CC HSP; Q07731; IAGQ.
CC MGD; MGI:107430; Gdnf.
CC GO; GO:0007422; P:peripheral nervous system development; IMP.
CC GO; GO:0030432; P:peristalsis; IMP.
CC InterPro; IPR001839; TGFb.
CC Pfam; PF00019; TGF-beta; 1.
CC SMART; SM00204; TGFb; 1.
CC PROSITE; PS00250; TGF_BETA_1; FALSE_NEG.
CC Growth factor; Glycoprotein; Signal; Alternative splicing.
FT SIGNAL 1 19 POTENTIAL.
FT PROPEP 20 77 BY SIMILARITY.
FT CHAIN 78 211 GLIAL CELL LINE-DERIVED NEUROTROPHIC
FT FT FACTOR.
FT DISULFID 118 179 BY SIMILARITY.
FT DISULFID 145 208 BY SIMILARITY.
FT DISULFID 149 210 BY SIMILARITY.
FT DISULFID 178 178 INTERCHAIN (BY SIMILARITY).
FT CARBOHYD 126 126 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 162 162 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT VARSPLIC 25 51 GKRLAPADHSLGHRVPFALTSDS -> A (in
FT isoform 2).
FT FT /FTID=VSP_006421.
SQ SEQUENCE 211 AA; 23662 MW; B6731C767A3A95B7 CRC64;
Query Match 32.7%; Score 173; DB 1; Length 211;
Best Local Similarity 41.5%; Pred. No. 1.8e-12;
Matches 39; Conservative 15; Mismatches 34; Indels 6; Gaps 3;
QY 6 CQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALRLQGGRAH---GG 61
DB 118 CVLTATHLNVDLGLGYETKEELIFRYCAGSC-ESAETMYDKILKNLSRRRLTSKVGQ 176
QY 62 PCRPRTRY-TDVAFLDDRHRWQRLPQLSAACGC 94
DB 177 ACCRPVAFDDLSFLDDNLVYHILRKHSKRCGC 210
RESULT 7

```


GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 9, 2003, 22:20:04 ; Search time 101 Seconds
(without alignments)
245.278 Million cell updates/sec

Title: US-09-474-980B-221

Perfect score: 529

Sequence: 1 ALSGPCQLWSLTLSVABGL.....DRHWQRQLPSAAACGGG 96

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

al number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL_23:*

- 1: sp_archaea:*
- 2: sp_bacteria:*
- 3: sp_fungi:*
- 4: sp_human:*
- 5: sp_invertebrate:*
- 6: sp_mammal:*
- 7: sp_mhc:*
- 8: sp_organelle:*
- 9: sp_phage:*
- 10: sp_plant:*
- 11: sp_rodent:*
- 12: sp_virus:*
- 13: sp_vertebrate:*
- 14: sp_unclassified:*
- 15: sp_rvirus:*
- 16: sp_bacteriaph:*
- 17: sp_archaeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	233.5	44.1	224	11 Q920L2	Q92012 mus musculus
2	225.5	42.6	220	4 Q96030	Q96030 homo sapien
3	225.5	42.6	237	4 Q95441	Q95441 homo sapien
4	175.5	33.2	161	11 Q9Q6G0	Q9Q290 rattus norv
5	175	33.1	160	6 Q97685	Q97685 macaca mula
6	173	32.7	143	6 Q8MJ77	Q8MJ77 alluropoda
7	169	31.9	133	4 Q9UD32	Q9UD32 homo sapien
8	169	31.9	185	4 Q96L44	Q96L44 homo sapien
9	158	29.9	143	13 Q8QCE9	Q8QCE9 nipponia ni
10	157	29.7	182	13 Q9IAM2	Q9IAM2 gallus gall
11	157	29.7	215	13 Q9IAM3	Q9IAM3 gallus gall
12	150	28.4	199	11 Q8R485	Q8R485 rattus norv
13	148	28.0	235	13 Q98TU0	Q98TU0 brachydanio
14	135.5	25.6	125	11 Q9Q2G3	Q9Q2G3 rattus norv
15	95.5	18.1	36	11 Q8JMC0	Q8JMC0 rattus norv
16	94.5	17.9	614	13 Q8JUC1	Q8JUC1 anguilla ja

17	91.5	17.3	359	13	Q8QG53	Q8QG53 sparus aura
18	89.5	16.9	377	13	Q98TB3	Q98TB3 morone chry
19	86.5	16.4	373	13	Q98UB3	Q98UB3 salvelinus
20	86.5	16.4	644	13	Q90974	Q90974 gallus gall
21	85.5	16.2	373	13	Q90W17	Q90W17 salmo salar
22	84.5	16.0	373	13	Q902D2	Q902D2 oncorhynch
23	84.5	16.0	373	13	Q90ZD1	Q90ZD1 oncorhynch
24	84.5	16.0	373	13	Q9DDI8	Q9DDI8 salmo salar
25	84.5	16.0	376	13	Q98TB4	Q98TB4 oreochromis
26	84.5	16.0	376	13	Q90WC9	Q90WC9 morone saxa
27	84.5	16.0	376	13	Q90WC8	Q90WC8 morone aner
28	84.5	16.0	385	13	Q90W05	Q90W05 sparus aura
29	84.5	16.0	395	13	Q9PWG6	Q9PWG6 anguilla ja
30	83.5	15.8	115	13	Q9DGE9	Q9DGE9 cyprinus ca
31	83.5	15.8	115	13	Q9DGF1	Q9DGF1 cyprinus ca
32	83.5	15.8	115	13	Q9DGB6	Q9DGB6 oryzias lat
33	83.5	15.8	138	13	Q9W6T9	Q9W6T9 brachydanio
34	83.5	15.8	376	13	Q90W06	Q90W06 umbrina cir
35	83.5	15.8	393	13	Q902B1	Q902B1 brachydanio
36	82.5	15.6	389	13	Q90YY0	Q90YY0 ictalurus p
37	81.5	15.4	115	13	Q9DGF0	Q9DGF0 cyprinus ca
38	81.5	15.4	374	13	Q8JF80	Q8JF80 brachydanio
39	81.5	15.4	598	5	Q9XZ62	Q9XZ62 drosophila
40	81.5	15.4	598	5	Q9V4F4	Q9V4F4 drosophila
41	80.5	15.2	162	6	Q9TSY2	Q9TSY2 sus scrofa
42	80.5	15.2	364	13	Q9PVK1	Q9PVK1 gallus gall
43	80.5	15.2	375	6	Q9GM97	Q9GM97 equus cabal
44	80.5	15.2	375	6	Q8WNS6	Q8WNS6 bos taurus
45	80.5	15.2	375	6	Q95J86	Q95J86 macaca fasc

ALIGNMENTS

RESULT 1

Q920L2	PRELIMINARY;	PRT;	224 AA.
ID Q920L2			
AC Q920L2;			
DT 01-MAY-1999	(TREMBlrel. 10, Created)		
DT 01-MAY-1999	(TREMBlrel. 10, Last sequence update)		
DT 01-MAR-2003	(TREMBlrel. 23, Last annotation update)		
DE	Neurotrophic factor artemin precursor (Adult MALE testis CDNA, RIKEN		
DE	FULL-length enriched LIBRARY, clone:4930445K15, FULL INSERT sequence)		
DE	(Artemin).		
GN	ARTN.		
OS	Mus musculus (Mouse).		
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;		
OC	Mammalia; Euthera; Rodentia; Sciurognathi; Muridae; Murinae; Mus.		
OX	NCBI_TaxID=10090;		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RX	MEDLINE=90098192; PubMed=9883723;		
RA	Baloh R.H., Tansey M.G., Lampe P.A., Fahrner T.J., Enomoto H.,		
RA	Simburger K.S., Leitner M.L., Araki T., Johnson E.M. Jr.,		
RA	Milbrandt J.;		
RT	"Artemin, a novel member of the GDNF ligand family, supports		
RT	peripheral and central neurons and signals through the GFRalpha3-RET		
RT	receptor complex.";		
RL	Neuron 21:1291-1302(1998).		
RN	[2]		
RP	SEQUENCE FROM N.A.		
RC	STRAIN=C57BL/6J; TISSUE=Testis;		
RX	MEDLINE=21085660; PubMed=11217851;		
RA	Kawai J., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,		
RA	Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,		
RA	Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,		
RA	Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,		
RA	Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,		
RA	Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,		
RA	Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,		
RA	Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,		
RA	Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,		

RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
 RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
 RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
 RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
 RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
 RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
 RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
 RA Hayashizaki Y.,
 RA "Functional annotation of a full-length mouse cDNA collection."
 RL Nature 409:685-690(2001).
 [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Oviduct;
 RX MEDLINE=22354683; PubMed=12466851;
 RA The FANTOM Consortium,
 RA "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs."
 RL Nature 420:563-573(2002).
 CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
 EMBL; AF109402; AAC98691.1; -
 EMBL; AK015393; BAB29827.1; -
 EMBL; AK05914; BAC35590.1; -
 HSSP; Q07731; IAGO.
 MGD; MGI:1333791; Artin.
 InterPro; IPR001839; TGFb.
 Pfam; PF00019; TGF-beta; 1.
 SMART; SM00204; TGFb; 1.
 FT CHAIN 112 224 NEUTROTROPIC FACTOR ARTEMIN.
 SQ SEQUENCE 224 AA; 23726 MW; 3328FB794561DFOB CRC64;
 Query Match 44.1%; Score 233.5; DB 11; Length 224;
 Best Local Similarity 48.5%; Pred. No. 3.1e-18;
 Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2;
 QY 6 COLWSLTSLVAELGLGYASEKVFPRYCAGSCPRGARTQHGIALARLQGG-----R 57
 DB 127 CLRSLQVPSVSLGLGSHSSDELVRFCGSC-RRARSQHLDSLALSLGAGALRPPGSR 185
 QY 58 AHGGPCCRPRYTDVAFLLDRHRWQRLPOLSAACGCG 96
 DB 186 PISQPCCRPRYEAIVFMDVNSTWRTVDHLSATACGCLG 224
 RESULT 2
 ID O96030 PRELIMINARY; PRT; 220 AA.
 AC O96030:
 01-MAY-1999 (TREMBlrel. 10, Created)
 01-OCT-2002 (TREMBlrel. 22, Last annotation update)
 Artemin.
 GN ARTN OR EVN.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=99098192; PubMed=9883723;
 RA Baloh R.H., Tansey M.G., Lampe P.A., Fahrner T.J., Enomoto H.,
 RA Simburger K.S., Leitner M.L., Araki T., Johnson E.M. Jr.,
 RA Milbrandt J.;
 RT "Artemin, a novel member of the GDNF ligand family, supports
 RT peripheral and central neurons and signals through the Gfra1pha3-RET
 RT receptor complex."
 RL Neuron 21:1291-1302(1998).
 CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
 EMBL; AF115765; AAD13110.1; -
 HSSP; Q07731; IAGO.
 Genew; HGNC:727; ARTN.
 InterPro; IPR001839; TGFb.
 Pfam; PF00019; TGF-beta; 1.
 SMART; SM00204; TGFb; 1.
 SQ SEQUENCE 237 AA; 24471 MW; 11C64C4B510CE3AB CRC64;
 Query Match 42.68%; Score 225.5; DB 4; Length 237;
 Best Local Similarity 48.5%; Pred. No. 2.6e-17;
 Matches 48; Conservative 13; Mismatches 29; Indels 9; Gaps 2;
 QY 6 COLWSLTSLVAELGLGYASEKVFPRYCAGSCPRGARTQHGIALARLQGG-----R 57
 DB 123 CLRSLQVPSVSLGLGSHSSDELVRFCGSC-RRARSQHLDSLALSLGAGALRPPGSR 181

[3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=20050601; PubMed=10583383;
 RA Masure S., Geerts H., Cik M., Hoefnagel E., Van Den Kieboom G.,
 RA Tuytelaars A., Harris S., Lease A.S., Laysen J.E., van der Helm L.,
 RA Verhaaselt P., Von J., Gordon R.D.,
 RT "Enovin, a member of the glial cell-line-derived neurotrophic factor
 RT (GDNF) family with growth promoting activity on neuronal cells.
 RT Existence and tissue-specific expression of different splice
 RT variants."
 RL Eur. J. Biochem. 266:892-902(1999).
 CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
 EMBL; AF115765; AAD13109.1; -
 EMBL; AF109401; AAC98690.1; -
 EMBL; AF120274; AAD21075.1; -
 EMBL; AJ245628; CAB52396.1; -
 HSSP; Q07731; IAGO.
 InterPro; IPR001839; TGFb.
 Pfam; PF00019; TGF-beta; 1.
 SMART; SM00204; TGFb; 1.
 KW Signal.
 SQ SEQUENCE 220 AA; 22906 MW; C47754B19AADCFFB CRC64;
 Query Match 42.6%; Score 225.5; DB 4; Length 220;
 Best Local Similarity 48.5%; Pred. No. 2.4e-17;
 Matches 48; Conservative 13; Mismatches 29; Indels 9; Gaps 2;
 QY 6 COLWSLTSLVAELGLGYASEKVFPRYCAGSCPRGARTQHGIALARLQGG-----R 57
 DB 123 CLRSLQVPSVSLGLGSHSSDELVRFCGSC-RRARSQHLDSLALSLGAGALRPPGSR 181
 QY 58 AHGGPCCRPRYTDVAFLLDRHRWQRLPOLSAACGCG 96
 DB 182 PVSQPCCRPRYEAIVFMDVNSTWRTVDHLSATACGCLG 220
 RESULT 3
 ID O95441 PRELIMINARY; PRT; 237 AA.
 AC O95441:
 01-MAY-1999 (TREMBlrel. 10, Created)
 01-OCT-2002 (TREMBlrel. 22, Last annotation update)
 Artemin.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=99098192; PubMed=9883723;
 RA Baloh R.H., Tansey M.G., Lampe P.A., Fahrner T.J., Enomoto H.,
 RA Simburger K.S., Leitner M.L., Araki T., Johnson E.M. Jr.,
 RA Milbrandt J.;
 RT "Artemin, a novel member of the GDNF ligand family, supports
 RT peripheral and central neurons and signals through the Gfra1pha3-RET
 RT receptor complex."
 RL Neuron 21:1291-1302(1998).
 CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
 EMBL; AF115765; AAD13110.1; -
 HSSP; Q07731; IAGO.
 Genew; HGNC:727; ARTN.
 InterPro; IPR001839; TGFb.
 Pfam; PF00019; TGF-beta; 1.
 SMART; SM00204; TGFb; 1.
 SQ SEQUENCE 237 AA; 24471 MW; 11C64C4B510CE3AB CRC64;
 Query Match 42.68%; Score 225.5; DB 4; Length 237;
 Best Local Similarity 48.5%; Pred. No. 2.6e-17;
 Matches 48; Conservative 13; Mismatches 29; Indels 9; Gaps 2;
 QY 6 COLWSLTSLVAELGLGYASEKVFPRYCAGSCPRGARTQHGIALARLQGG-----R 57

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Db 140 CRLRSQVPRVRLGLHRSDELVRFCGSGC-RRASPHDLSLASLLGAGALRPPGSR 198
Qy 58 AHGPGCCPRTRYTDVAFELDDRRHWRQLPOLSAACGCGG 96
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 199 PVSQPCPRTRYAEVSPMDVNSTWRTVDRLSATACGCLG 237

RESULT 4
Q9QZG0 PRELIMINARY; PRT; 161 AA.
AC Q9QZG0;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-OCT-2002 (Tremblrel. 22, Last annotation update)
DE Neurturin (Fragment).
GN NTN.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
[1]
SEQUENCE FROM N.A.
RC STRAIN-Sprague-Dawley; TISSUE=Cochlea;
RA Stover T., Gong T.-W., Cho Y., Altschuler R.A., Lomax M.I.;
RT "Expression of neurturin, artemin, persephin and their receptors GFRA-
    2 and GFRA-3 in the mature rat cochlea.";
RL Submitted (SEP-1999) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AF184922; AAF01244.1; -.
DR HSP; Q07731; IAGQ.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
FT NON_TER 1
FT 161
SQ SEQUENCE 161 AA; 18337 MW; E7ACBAC302A93A7 CRC64;

Query Match 33.28; Score 175.5; DB 11; Length 161;
Best Local Similarity 50.68; Pred. No. 6.8e-12;
Matches 41; Conservative 9; Mismatches 20; Indels 11; Gaps 4;

Qy 3 SGPCQLMSLTSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGALARLQGGC----- 56
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 84 SRPCGLRELVRSYSELGTSDETFLFRYCAGACAAIRI-YDLGLRLRRQRRVKER 142

Qy 57 -RHAGGCCPRTRYTD-VAF 75
    ||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 143 VRAH--PCCRPTAYDEVSEFL 161

ULT 5
Q97685 PRELIMINARY; PRT; 160 AA.
AC Q97685;
DT 01-MAY-1999 (Tremblrel. 10, Created)
DT 01-MAY-1999 (Tremblrel. 10, Last sequence update)
DT 01-MAR-2003 (Tremblrel. 23, Last annotation update)
DE Neurotrophic factor (Fragment).
GN GDNF.
OS Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Macaca.
NCBI_TaxID=9544;
[1]
SEQUENCE FROM N.A.
RA Erjia C., Yong L., QiuJiang D.;
RT "The gene cloning of macaca and human GDNF by direct PCR from whole
    blood and sequence analysis.";
RL Submitted (NOV-1998) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AF106678; AAC99782.1; -.
DR HSP; Q07731; IAGQ.
DR InterPro; IPR002400; GF_cysknot.

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DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR SMART; SM00204; TGFb; 1.
FT NON_TER 1
SQ SEQUENCE 160 AA; 18196 MW; E206362185D499B4 CRC64;

Query Match 33.18; Score 175; DB 6; Length 160;
Best Local Similarity 42.68; Pred. No. 7.7e-12;
Matches 40; Conservative 15; Mismatches 33; Indels 6; Gaps 3;

Qy 6 COLMSLTSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGALARLQGGC-----AHGG 61
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 67 CVLTAVHLNVTDLGLGYETKEELFRYCGSGCD-AAETTYDKILKLSNRRLVSDKVQG 125

Qy 62 PCCRPTRY-TDVAFLDDRHRWRQLPOLSAACGCG 94
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 126 ACCRPTAFDDDLDFLDDNVLVHILRKHSKRCGC 159

RESULT 6
Q8MJ77 PRELIMINARY; PRT; 143 AA.
AC Q8MJ77;
DT 01-OCT-2002 (Tremblrel. 22, Created)
DT 01-OCT-2002 (Tremblrel. 22, Last sequence update)
DT 01-MAR-2003 (Tremblrel. 23, Last annotation update)
DE Neurotrophic factor precursor (Fragment).
GN GDNF.
OS Alluropoda melanoleuca (Giant panda).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Ursidae; Alluropoda.
NCBI_TaxID=9646;
[1]
SEQUENCE FROM N.A.
RA Zheng H., Fang S.;
RT "Cloning and expression of glial cell line-derived neurotrophic factor
    (GDNF) of the Giant Panda (Alluropoda melanoleuca).";
RL Submitted (MAY-2002) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AF516767; AAME4208.1; -.
DR InterPro; IPR002400; GF_cysknot.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR SMART; SM00204; TGFb; 1.
KW Signal.
FT NON_TER 1
FT 9
FT SIGNAL <1
FT CHAIN 10 >143
FT NON_TER 143
SQ SEQUENCE 143 AA; 16104 MW; 494BA019EF7EC8C2 CRC64;

Query Match 32.78; Score 173; DB 6; Length 143;
Best Local Similarity 42.68; Pred. No. 1.2e-11;
Matches 40; Conservative 14; Mismatches 34; Indels 6; Gaps 3;

Qy 6 COLMSLTSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGALARLQGGC-----AHGG 61
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 50 CVLTAVHLNVTDLGLGYETKEELFRYCGSGCD-AAETTYDKILKLSNRRLVSDKVQG 108

Qy 62 PCCRPTRY-TDVAFLDDRHRWRQLPOLSAACGCG 94
    ||||| 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1 1:1:1
Db 109 ACCRPIAYDDDLDFLDDNVLVHILRKHSKRCGC 142

RESULT 7
Q9UD32 PRELIMINARY; PRT; 133 AA.
AC Q9UD32;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-MAR-2003 (Tremblrel. 23, Last annotation update)

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DE ASTROCYTE-derived TROPHIC factor 2, ATF-2.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95172201; PubMed=7867768;
RA Schaar D.G., Steier B.A., Sherwood A.C., Dean D., Mendoza G.,
RA Ramakrishnan L., Dreyfus C.F., Black I.B.;
RT "Multiple astrocyte transcripts encode nigral trophic factors in rat
RT and human.";
RL Exp. Neurol. 130:387-393(1994).
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR HSP; Q07731; LAGO.
DR InterPro; IPR002400; GF_Cysknot.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR SMART; SM00204; TGFb; 1.
DR SEQUENCE 133 AA; 14736 MW; B46B96DD5F679769 CRC64;
Query Match 31.9%; Score 169; DB 4; Length 133;
Best Local Similarity 41.5%; Pred. No. 3e-11;
Matches 39; Conservative 15; Mismatches 34; Indels 6; Gaps 3;
QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSPRGARTOHLALRLOQGR----AHGG 61
DB 40 CVLTALHNVTDLGLGYETKEELIFRYCSGSD-AAETTYDKILNLSNRRLVSDKVQ 98
QY 62 PCRPRTRY-TDVAFLDDRHWORLPOLSAAGC 94
DB 99 ACCRPTAFDDLSFLDDNLVYHLKHSKRGC 132
RESULT 8
Q96144 PRELIMINARY; PRT; 185 AA.
AC Q96144;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Glial cell-derived neurotrophic factor isoform.
GN GDNF.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX Zhang B., Feng Z., Zhou Y., Peng X., Yuan J., Qiang B.;
RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AY052832; AAL11017.1; -.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR SMART; SM00204; TGFb; 1.
DR SEQUENCE 185 AA; 20885 MW; 1988C50DA5EA1B10 CRC64;
Query Match 31.9%; Score 169; DB 4; Length 185;
Best Local Similarity 41.5%; Pred. No. 4.2e-11;
Matches 39; Conservative 15; Mismatches 34; Indels 6; Gaps 3;
QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSPRGARTOHLALRLOQGR----AHGG 61
DB 92 CVLTALHNVTDLGLGYETKEELIFRYCSGSD-AAETTYDKILNLSNRRLVSDKVQ 150
QY 62 PCRPRTRY-TDVAFLDDRHWORLPOLSAAGC 94
DB 151 ACCRPTAFDDLSFLDDNLVYHLKHSKRGC 184
RESULT 9
Q96144 PRELIMINARY; PRT; 185 AA.
AC Q96144;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Glial cell-derived neurotrophic factor isoform.
GN GDNF.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX Zhang B., Feng Z., Zhou Y., Peng X., Yuan J., Qiang B.;
RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AY052832; AAL11017.1; -.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR SMART; SM00204; TGFb; 1.
DR SEQUENCE 185 AA; 20885 MW; 1988C50DA5EA1B10 CRC64;
Query Match 31.9%; Score 169; DB 4; Length 185;
Best Local Similarity 41.5%; Pred. No. 4.2e-11;
Matches 39; Conservative 15; Mismatches 34; Indels 6; Gaps 3;
QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSPRGARTOHLALRLOQGR----AHGG 61
DB 92 CVLTALHNVTDLGLGYETKEELIFRYCSGSD-AAETTYDKILNLSNRRLVSDKVQ 150
QY 62 PCRPRTRY-TDVAFLDDRHWORLPOLSAAGC 94
DB 151 ACCRPTAFDDLSFLDDNLVYHLKHSKRGC 184
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Q8QGE9 PRELIMINARY; PRT; 143 AA.
AC Q8QGE9;
DT 01-JUN-2002 (TrEMBLrel. 21, Created)
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Glial cell line-derived neurotrophic factor GDNF (Fragment).
GN GDNF.
OS Nipponia nippon.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Ciconiiformes; Threskiornithidae;
OC Nipponia.
OX NCBI_TaxID=128390;
RN [1]
RP SEQUENCE FROM N.A.
RA Zheng H., Fang S., Xi Y., Fujihara N.;
RT "Cloning and expression of glial cell line-derived neurotrophic factor
RT (GDNF) of Nipponia nippon.";
RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AF469665; AAL79041.1; -.
DR InterPro; IPR002400; GF_Cysknot.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR SMART; SM00204; TGFb; 1.
DR NON_TER 143
FT NON_TER 143
SQ SEQUENCE 143 AA; 16507 MW; 26ADBB9C00B6231E CRC64;
Query Match 29.9%; Score 158; DB 13; Length 143;
Best Local Similarity 39.4%; Pred. No. 5.5e-10;
Matches 37; Conservative 16; Mismatches 35; Indels 6; Gaps 3;
QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSPRGARTOHLALRLOQGRAGG----61
DB 50 CVLTALHNVTDLGLGYETKEELIFRYCSGSD-AAETTYDKILNLSNRRLVSDKVQ 108
QY 62 PCRPRTRY-TDVAFLDDRHWORLPOLSAAGC 94
DB 109 ACCRPTAFDDLSFLDDNLVYHLKHSKRGC 142
RESULT 10
Q9IAM2 PRELIMINARY; PRT; 182 AA.
AC Q9IAM2;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Glial cell line-derived neurotrophic factor short form
DE (Fragment).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20092738; PubMed=10625540;
RA Homma S., Oppenheim R.W., Yaginuma H., Kimura S.;
RT "Expression pattern of GDNF, c-ret, and GFRalphas suggests novel roles
RT for GDNF ligands during early organogenesis in the chick embryo.";
RL Dev. Biol. 217:121-137(2000).
CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
DR EMBL; AF176018; AAF26685.1; -.
DR HSP; Q07731; LAGO.
DR InterPro; IPR001839; TGFb.
DR Pfam; PF00019; TGF-beta; 1.
DR NON_TER 182
FT NON_TER 182
SQ SEQUENCE 182 AA; 20740 MW; 6A8AC16BD1B4F103 CRC64;
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OM protein - protein search, using sw model

Run on: September 9, 2003, 22:21:04 ; Search time 29 Seconds
(without alignments)
140.064 Million cell updates/sec

Title: US-09-474-980B-221

Perfect score: 529

Sequence: 1 ALSGPCQLWSLTLSVAELGL.....DRRWQLPOLSAACCGG 96

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- 1: /cgn2_6/ptodata/1/1aa/5A-COMB.pep.*
- 2: /cgn2_6/ptodata/1/1aa/5B-COMB.pep.*
- 3: /cgn2_6/ptodata/1/1aa/6A-COMB.pep.*
- 4: /cgn2_6/ptodata/1/1aa/6B-COMB.pep.*
- 5: /cgn2_6/ptodata/1/1aa/PCTUS-COMB.pep.*
- 6: /cgn2_6/ptodata/1/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	529	100.0	96	3	US-08-931-858E-221
2	529	100.0	96	3	US-09-220-528-15
3	529	100.0	133	3	US-08-931-858E-132
4	529	100.0	156	3	US-08-931-858E-217
5	492	93.0	89	3	US-08-931-858E-223
6	492	93.0	89	3	US-09-220-528-18
7	439	83.0	96	3	US-08-931-858E-80
8	439	83.0	96	3	US-08-931-858E-187
9	439	83.0	96	3	US-08-981-739-80
10	439	83.0	96	4	US-08-128-026-80
11	439	83.0	134	3	US-08-981-739-81
12	439	83.0	134	4	US-09-128-026-81
13	439	83.0	142	3	US-08-931-858E-111
14	439	83.0	142	3	US-08-981-739-111
15	439	83.0	142	4	US-09-128-026-111
16	439	83.0	156	3	US-08-931-858E-185
17	439	83.0	185	3	US-08-981-739-133
18	439	83.0	185	4	US-09-128-026-133
19	433	81.9	96	3	US-08-931-858E-198
20	433	81.9	156	3	US-08-931-858E-196
21	433	81.9	185	3	US-08-981-739-136
22	433	81.9	185	4	US-09-128-026-136
23	425	80.3	91	3	US-08-931-858E-89
24	425	80.3	91	3	US-08-981-739-89
25	425	80.3	91	4	US-09-128-026-89
26	423	80.0	91	3	US-08-931-858E-83
27	423	80.0	91	3	US-08-981-739-83

28 423 80.0 91 4 US-09-128-026-83 Sequence 83, Appl
29 413 78.1 89 3 US-08-931-858E-79 Sequence 79, Appl
30 413 78.1 89 3 US-08-981-739-79 Sequence 79, Appl
31 413 78.1 89 4 US-09-128-026-79 Sequence 79, Appl
32 411 77.7 89 3 US-08-931-858E-82 Sequence 82, Appl
33 411 77.7 89 3 US-08-981-739-82 Sequence 82, Appl
34 411 77.7 89 4 US-09-128-026-82 Sequence 82, Appl
35 363.5 68.7 96 3 US-08-931-858E-141 Sequence 141, App
36 363.5 68.7 96 3 US-08-981-739-141 Sequence 141, App
37 363.5 68.7 96 4 US-09-128-026-141 Sequence 141, App
38 338 63.9 73 3 US-08-931-858E-106 Sequence 106, App
39 292 55.2 100 3 US-08-931-858E-146 Sequence 146, App
40 292 55.2 100 3 US-08-981-739-146 Sequence 146, App
41 292 55.2 100 4 US-09-128-026-146 Sequence 146, App
42 233.5 44.1 113 3 US-09-220-528-34 Sequence 34, Appl
43 233.5 44.1 116 3 US-09-220-528-35 Sequence 35, Appl
44 233.5 44.1 144 3 US-09-220-528-36 Sequence 36, Appl
45 233.5 44.1 185 3 US-09-220-528-41 Sequence 41, Appl

ALIGNMENTS

RESULT 1
US-08-931-858E-221
; Sequence 221, Application US/08931858E
; Patent No. 622022
; GENERAL INFORMATION:
; APPLICANT: JOHNSON, EUGENE M
; APPLICANT: MILBRANDT, JEFFREY D
; APPLICANT: KOTZBAUER, PAUL T
; APPLICANT: LAMPE, PATRICIA A
; APPLICANT: KLEIN, ROBERT
; APPLICANT: DESAUVAGE, FRED
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
; NUMBER OF SEQUENCES: 239
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MO
; COUNTRY: USA
; ZIP: 63105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/08/931.858E
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 971486
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 314-727-5188
; TELEFAX: 314-727-6092
; INFORMATION FOR SEQ ID NO: 221:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 96 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-931-858E-221

Query Match 100.0% Score 529; DB 3; Length 96;
Best Local Similarity 100.0%; Pred. No. 3.2e-59;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 ALSGPCQLWSLTLSVAELGLVASEKVIIFRYCAGSCPRGARTQHGLALRIQGGRAHG 60

Db 1 ALSGPCQLWSLTSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGGRAHG 60
QY 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 96
Db 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 96

RESULT 2

US-09-220-528-15
; Sequence 15, Application US/09220528A
; Patent No. 6284540
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; TITLE OF INVENTION: Artemin, A No. 6284540el Neurotrophic Factor
; FILE REFERENCE: 6029-7998
; CURRENT APPLICATION NUMBER: US/09/220,528A
; EARLIER FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 15
; LENGTH: 96
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-528-15

Query Match 100.0%; Score 529; DB 3; Length 96;
Best Local Similarity 100.0%; Pred. No. 3.2e-59;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGGRAHG 60
Db 1 ALSGPCQLWSLTSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGGRAHG 60
QY 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 96
Db 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 96

RESULT 3

US-08-931-858E-132
; Sequence 132, Application US/08931858E
; Patent No. 6222022
; GENERAL INFORMATION:
; APPLICANT: JOHNSON, EUGENE M
; APPLICANT: MILBRANDT, JEFFREY D
; APPLICANT: KOTZBAUER, PAUL T
; APPLICANT: LAMPE, PATRICIA A
; APPLICANT: KLEIN, ROBERT
; APPLICANT: DESAUVAGE, FRED
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
; NUMBER OF SEQUENCES: 239
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MO
; COUNTRY: USA
; ZIP: 63105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/931,858E

; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 971486
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 314-727-5188
; TELEFAX: 314-727-6092
; INFORMATION FOR SEQ ID NO: 132:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 133 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-931-858E-132
Query Match 100.0%; Score 529; DB 3; Length 133;
Best Local Similarity 100.0%; Pred. No. 4.8e-59;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 ALSGPCQLWSLTSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGGRAHG 60
Db 38 ALSGPCQLWSLTSVAELGLGYASEKVFIRYCAGSCPRGARTQHG LALARLQGGRAHG 97
QY 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 96
Db 98 GPCCRPTRYTDVAFDDRRHWRLPQLSAAACGCGG 133

RESULT 4

US-08-931-858E-217
; Sequence 217, Application US/08931858E
; Patent No. 6222022
; GENERAL INFORMATION:
; APPLICANT: JOHNSON, EUGENE M
; APPLICANT: MILBRANDT, JEFFREY D
; APPLICANT: KOTZBAUER, PAUL T
; APPLICANT: LAMPE, PATRICIA A
; APPLICANT: KLEIN, ROBERT
; APPLICANT: DESAUVAGE, FRED
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
; NUMBER OF SEQUENCES: 239
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MO
; COUNTRY: USA
; ZIP: 63105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/931,858E
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 971486
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 314-727-5188
; TELEFAX: 314-727-6092
; INFORMATION FOR SEQ ID NO: 217:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 156 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear

MOLECULE TYPE: peptide
US-08-931-858E-217

Query Match 100.0%; Score 529; DB 3; Length 156;
Best Local Similarity 100.0%; Pred. No. 5.8e-59;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHG 60
DB 61 ALSGPCQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHG 120
QY 61 GPCCRPRYTDVAFDDRRHWRLPOLSAACGGCG 96
DB 121 GPCCRPRYTDVAFDDRRHWRLPOLSAACGGCG 156

RESULT 5

US-08-931-858E-223
Sequence 223, Application US/08931858E
Patent No. 622022

GENERAL INFORMATION:

APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:

ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MO
COUNTRY: USA
ZIP: 63105

COMPUTER READABLE FORM:

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
FILING DATE: US/08/931,858E

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092

INFORMATION FOR SEQ ID NO: 223:

SEQUENCE CHARACTERISTICS:
LENGTH: 89 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-931-858E-223

Query Match 93.0%; Score 492; DB 3; Length 89;
Best Local Similarity 100.0%; Pred. No. 1.3e-54;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHGPCCR 65
DB 1 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHGPCCR 60
QY 66 PTRYTDVAFDDRRHWRLPOLSAACGC 94
DB 61 PTRYTDVAFDDRRHWRLPOLSAACGC 89

RESULT 6

US-09-220-528-18
Sequence 18, Application US/09220528A
Patent No. 6284540
GENERAL INFORMATION:

APPLICANT: Milbrandt, Jeffrey D.
APPLICANT: Balon, Robert H.
TITLE OF INVENTION: Artemin, A No. 6284540a1 Neurotrophic Factor
FILE REFERENCE: 6029-7998
CURRENT APPLICATION NUMBER: US/09/220,528A
CURRENT FILING DATE: 1998-12-24
EARLIER APPLICATION NUMBER: 09/218,698
EARLIER FILING DATE: 1998-12-22
EARLIER APPLICATION NUMBER: 60/108,148
EARLIER FILING DATE: 1998-11-12
EARLIER APPLICATION NUMBER: 09/163,283
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patent In Ver. 2.0
SEQ ID NO 18
LENGTH: 89
TYPE: PRT
ORGANISM: Homo sapiens
US-09-220-528-18

Query Match 93.0%; Score 492; DB 3; Length 89;
Best Local Similarity 100.0%; Pred. No. 1.3e-54;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHGPCCR 65
DB 1 COLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTOHGLALARLQGGRAHGPCCR 60
QY 66 PTRYTDVAFDDRRHWRLPOLSAACGC 94
DB 61 PTRYTDVAFDDRRHWRLPOLSAACGC 89

RESULT 7

US-08-931-858E-80
Sequence 80, Application US/08931858E
Patent No. 622022

GENERAL INFORMATION:

APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:

ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MO
COUNTRY: USA
ZIP: 63105

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
FILING DATE:

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMMUNICATION INFORMATION:

TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 80:
SEQUENCE CHARACTERISTICS:
LENGTH: 96 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-931-858E-80

Query Match 83.0%; Score 439; DB 3; Length 96;
Best Local Similarity 81.2%; Pred. No. 6.9e-48;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEKVFIFRYCAGSCPRGARTQHGILALRLQGGRAHG 60
DB 1 ALAGSCLWSLTLPVAELGLGYASEKVFIFRYCAGSCPQEARQHSILVLRGRG 60
QY 61 GPCCRPTRYTDVAFDDRRHWQRLPOLSAACGCGG 96
DB 61 RPCCQPTSYADVTFDDQHHWQQLPOLSAACGCGG 96

RESULT 8
US-08-931-858E-187
Sequence 187, Application US/08931858E
Patent No. 6222022
GENERAL INFORMATION:
APPLICANT: JOHNSON, EUGENE M.
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MO
COUNTRY: USA
ZIP: 63105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/931,858E
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 187:
SEQUENCE CHARACTERISTICS:
LENGTH: 96 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-931-858E-187

Query Match 83.0%; Score 439; DB 3; Length 96;
Best Local Similarity 81.2%; Pred. No. 6.9e-48;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEKVFIFRYCAGSCPRGARTQHGILALRLQGGRAHG 60
DB 1 ALAGSCLWSLTLPVAELGLGYASEKVFIFRYCAGSCPQEARQHSILVLRGRG 60
QY 61 GPCCRPTRYTDVAFDDRRHWQRLPOLSAACGCGG 96
DB 61 RPCCQPTSYADVTFDDQHHWQQLPOLSAACGCGG 96

RESULT 9
US-08-981-739-80
Sequence 80, Application US/08981739
Patent No. 6232449
GENERAL INFORMATION:
APPLICANT: JOHNSON JR., EUGENE M.
APPLICANT: MILBRANDT, JEFFREY D.
APPLICANT: KOTZBAUER, PAUL T.
APPLICANT: LAMPE, PATRICIA A.
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
NUMBER OF SEQUENCES: 176
CORRESPONDENCE ADDRESS:
ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MISSOURI
COUNTRY: US
ZIP: 63105-1817
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/981,739
FILING DATE: 31-Aug-1998
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US97/03461
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 976163
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 727-5188
TELEFAX: (314) 727-6092
INFORMATION FOR SEQ ID NO: 80:
SEQUENCE CHARACTERISTICS:
LENGTH: 96 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 80:
US-08-981-739-80

Query Match 83.0%; Score 439; DB 3; Length 96;
Best Local Similarity 81.2%; Pred. No. 6.9e-48;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEKVFIFRYCAGSCPRGARTQHGILALRLQGGRAHG 60
DB 1 ALAGSCLWSLTLPVAELGLGYASEKVFIFRYCAGSCPQEARQHSILVLRGRG 60
QY 61 GPCCRPTRYTDVAFDDRRHWQRLPOLSAACGCGG 96
DB 61 RPCCQPTSYADVTFDDQHHWQQLPOLSAACGCGG 96

RESULT 10
US-09-128-026-80
Sequence 80, Application US/09128026
Patent No. 6403335

```
;
; GENERAL INFORMATION:
; APPLICANT: JOHNSON JR., EUGENE M.
; APPLICANT: MILBRANDT, JEFFREY D.
; APPLICANT: KOTZBAUER, PAUL T.
; APPLICANT: LAMPE, PATRICIA A.
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
; NUMBER OF SEQUENCES: 176
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MISSOURI
; COUNTRY: US
; ZIP: 63105-1817
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/128.026
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 976163
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 727-5188
; TELEFAX: (314) 727-6092
; INFORMATION FOR SEQ ID NO: 80:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 96 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-128-026-80

Query Match      83.0%  Score 439; DB 4; Length 96;
Best Local Similarity 81.2%  Pred. No. 6.9e-48;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGIALARLQCGGRAHG 60
   |||:||||| |||:||||| |||:||||| |||:||||| |||:||||| |||:|||||
Db 1 ALAGSCLRLWSLTLPVAELGLGYASEEKVIFRYCAGSCPQEARQTQHSVLARLGRGRAHG 60
   |||:||||| |||:||||| |||:||||| |||:||||| |||:||||| |||:|||||
61 GPCCRPTRYTDVAFLLDRHRWQRLPOLSAACGCGG 96
   |||:||||| |||:||||| |||:||||| |||:||||| |||:||||| |||:|||||
61 RPPCQPTSYADVTFLLDDHWHQQLPOLSAACGCGG 96

RESULT 11
US-08-981-739-81
; Sequence 81, Application US/08981739
; Patent No. 6232449
; GENERAL INFORMATION:
; APPLICANT: JOHNSON JR., EUGENE M.
; APPLICANT: MILBRANDT, JEFFREY D.
; APPLICANT: KOTZBAUER, PAUL T.
; APPLICANT: LAMPE, PATRICIA A.
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
; NUMBER OF SEQUENCES: 176
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MISSOURI
; COUNTRY: US
; ZIP: 63105-1817
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
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;
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/981,739
; FILING DATE: 31-Aug-1998
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/US97/03461
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 976163
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 727-5188
; TELEFAX: (314) 727-6092
; INFORMATION FOR SEQ ID NO: 81:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 134 amino acids
; TYPE: amino acid
; STRANDEDNESS: <Unknown>
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 81:
US-08-981-739-81

Query Match      83.0%  Score 439; DB 3; Length 134;
Best Local Similarity 81.2%  Pred. No. 1e-47;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTLSVAELGLGYASEEKVIFRYCAGSCPRGARTQHGIALARLQCGGRAHG 60
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Db 39 ALAGSCLRLWSLTLPVAELGLGYASEEKVIFRYCAGSCPQEARQTQHSVLARLGRGRAHG 98
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61 GPCCRPTRYTDVAFLLDRHRWQRLPOLSAACGCGG 96
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99 RPPCQPTSYADVTFLLDDHWHQQLPOLSAACGCGG 134

RESULT 12
US-09-128-026-81
; Sequence 81, Application US/09128026
; Patent No. 6403335
; GENERAL INFORMATION:
; APPLICANT: JOHNSON JR., EUGENE M.
; APPLICANT: MILBRANDT, JEFFREY D.
; APPLICANT: KOTZBAUER, PAUL T.
; APPLICANT: LAMPE, PATRICIA A.
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
; NUMBER OF SEQUENCES: 176
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MISSOURI
; COUNTRY: US
; ZIP: 63105-1817
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/128.026
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 976163
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 727-5188
; TELEFAX: (314) 727-6092
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; INFORMATION FOR SEQ ID NO: 81:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 134 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-128-026-81

Query Match      83.0%; Score 439; DB 4; Length 142;
Best Local Similarity 81.2%; Pred. No. 1.e-47;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 1 ALSGPCQLWSLTPVAELGLGYASEEKVIFRYCAGSCPRGARTQHGLALARLQGGRAHG 60
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Db 39 ALAGSCLWSLTPVAELGLGYASEEKVIFRYCAGSCPQEARQHSVLARLGRGRAHG 98
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QY 61 GPCCRPTRYTDVAFDDRRHWQLPQLSAAACGCG 96
   ||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 99 RPCCQPTSYADVTFELDDQHHWQLPQLSAAACGCG 134
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ULT 13
US-08-931-858E-111
; Sequence 111, Application US/08931858E
; Patent No. 6222022
; GENERAL INFORMATION:
; APPLICANT: JOHNSON, EUGENE M
; APPLICANT: MILBRANDT, JEFFREY D
; APPLICANT: KOTZBAUER, PAUL T
; APPLICANT: LAMPE, PATRICIA A
; APPLICANT: KLEIN, ROBERT
; APPLICANT: DESAUVAGE, FRED
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
; NUMBER OF SEQUENCES: 239
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MO
; COUNTRY: USA
; ZIP: 63105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; FILING DATE:
; APPLICATION NUMBER: US/08/931,858E
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 971486
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 314-727-5188
; TELEFAX: 314-727-6092
; INFORMATION FOR SEQ ID NO: 111:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 142 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-931-858E-111

Query Match      83.0%; Score 439; DB 3; Length 142;
Best Local Similarity 81.2%; Pred. No. 1.e-47;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

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QY 61 GPCCRPTRYTDVAFDDRRHWQLPQLSAAACGCG 96
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RESULT 14
US-08-981-739-111
; Sequence 111, Application US/08981739
; Patent No. 6232449
; GENERAL INFORMATION:
; APPLICANT: JOHNSON JR., EUGENE M.
; APPLICANT: MILBRANDT, JEFFREY D.
; APPLICANT: KOTZBAUER, PAUL T.
; APPLICANT: LAMPE, PATRICIA A.
; TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
; NUMBER OF SEQUENCES: 176
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: HOWELL & HAFERKAMP, L.C.
; STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
; CITY: ST. LOUIS
; STATE: MISSOURI
; COUNTRY: US
; ZIP: 63105-1817
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/981,739
; FILING DATE: 31-Aug-1998
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/US97/03461
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: HOLLAND, DONALD R.
; REGISTRATION NUMBER: 35,197
; REFERENCE/DOCKET NUMBER: 976163
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 727-5188
; TELEFAX: (314) 727-6092
; INFORMATION FOR SEQ ID NO: 111:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 142 amino acids
; TYPE: amino acid
; STRANDEDNESS: <Unknown>
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 111:
US-08-981-739-111

Query Match      83.0%; Score 439; DB 3; Length 142;
Best Local Similarity 81.2%; Pred. No. 1.e-47;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

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RESULT 15
US-09-128-026-111
; Sequence 111, Application US/09128026
; Patent No. 6403335
; GENERAL INFORMATION:
; APPLICANT: JOHNSON JR., EUGENE M.
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APPLICANT: MILBRANDT, JEFFREY D.
APPLICANT: KOTZBAUER, PAUL T.
APPLICANT: LAMPE, PATRICIA A.
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
NUMBER OF SEQUENCES: 176
CORRESPONDENCE ADDRESS:
ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MISSOURI
COUNTRY: US
ZIP: 63105-1817
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/128,026
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 976163
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 727-5188
TELEFAX: (314) 727-6092
INFORMATION FOR SEQ ID NO: 111:
SEQUENCE CHARACTERISTICS:
LENGTH: 142 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-128-026-111

Query Match 83.0%; Score 439; DB 4; Length 142;
Best Local Similarity 81.2%; Pred. No. 1.le-47;
Matches 78; Conservative 8; Mismatches 10; Indels 0; Gaps 0;
QY 1 ALSGPCQLWSLTLSVAELGLGYASEKVIERYCAGSCPRGARTOHGLALRLQGGRAHG 60
DB 47 ALAGSCLWSLTLPVAELGLGYASEKVIERYCAGSCPEARTQHSVLRLRGRG 106
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Job time : 32 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

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Perfect score: 529
Sequence: 1 ALSGPCQLWSLTLSVAELGL.....DRHRWQRLPQLSAAACGGG 96

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Gapop 10.0 , Gapext 0.5

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al number of hits satisfying chosen parameters: 513375

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA:*

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- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Score	Match	Length	DB	ID	Description
1	529	100.0	96	9	US-09-220-920-15		Sequence 15, Appl
2	529	100.0	157	10	US-09-813-398-41		Sequence 41, Appl
3	492	93.0	89	9	US-09-220-920-18		Sequence 18, Appl
4	322	60.9	183	9	US-09-800-729-101		Sequence 101, Appl
5	233.5	44.1	113	9	US-09-220-920-34		Sequence 34, Appl
6	233.5	44.1	116	9	US-09-220-920-35		Sequence 35, Appl
7	233.5	44.1	144	9	US-09-220-920-36		Sequence 36, Appl
8	233.5	44.1	185	9	US-09-220-920-41		Sequence 41, Appl
9	233.5	44.1	200	9	US-09-804-615-2		Sequence 2, Appl
10	233.5	44.1	224	9	US-09-220-920-29		Sequence 29, Appl
11	233.5	44.1	224	9	US-09-804-615-16		Sequence 16, Appl
12	231.5	43.8	96	9	US-09-220-920-33		Sequence 33, Appl
13	227.5	43.0	224	9	US-09-804-615-34		Sequence 34, Appl
14	225.5	42.6	113	9	US-09-220-920-3		Sequence 3, Appl
15	225.5	42.6	113	9	US-09-804-615-12		Sequence 12, Appl

16	225.5	42.6	114	9	US-09-804-615-37		Sequence 37, Appl
17	225.5	42.6	116	9	US-09-220-920-4		Sequence 4, Appl
18	225.5	42.6	116	9	US-09-804-615-11		Sequence 11, Appl
19	225.5	42.6	135	9	US-09-804-615-40		Sequence 40, Appl
20	225.5	42.6	140	9	US-09-220-920-5		Sequence 5, Appl
21	225.5	42.6	140	9	US-09-804-615-10		Sequence 10, Appl
22	225.5	42.6	159	9	US-09-220-920-12		Sequence 12, Appl
23	225.5	42.6	159	9	US-09-220-920-89		Sequence 89, Appl
24	225.5	42.6	181	9	US-09-220-920-40		Sequence 40, Appl
25	225.5	42.6	220	9	US-09-220-920-26		Sequence 26, Appl
26	225.5	42.6	220	9	US-09-804-615-9		Sequence 9, Appl
27	225.5	42.6	220	14	US-10-001-054-56		Sequence 56, Appl
28	225.5	42.6	220	15	US-10-223-085-318		Sequence 318, App
29	225.5	42.6	220	15	US-10-223-084-318		Sequence 318, App
30	225.5	42.6	220	15	US-10-223-088-318		Sequence 318, App
31	225.5	42.6	220	15	US-10-223-090-318		Sequence 318, App
32	225.5	42.6	220	15	US-10-223-087-318		Sequence 318, App
33	225.5	42.6	220	15	US-10-223-083-318		Sequence 318, App
34	225.5	42.6	220	15	US-10-223-089-318		Sequence 318, App
35	225.5	42.6	237	9	US-09-220-920-32		Sequence 32, Appl
36	225.5	42.6	238	10	US-09-813-398-40		Sequence 40, Appl
37	223.5	42.2	96	9	US-09-220-920-19		Sequence 19, Appl
38	221.5	41.9	113	9	US-09-804-615-7		Sequence 7, Appl
39	221.5	41.9	116	9	US-09-804-615-6		Sequence 6, Appl
40	221.5	41.9	140	9	US-09-804-615-5		Sequence 5, Appl
41	219.5	41.5	102	9	US-09-220-920-14		Sequence 14, Appl
42	219.5	41.5	198	10	US-09-813-398-17		Sequence 17, Appl
43	218.5	41.3	237	9	US-09-804-615-4		Sequence 4, Appl
44	215.5	40.7	90	9	US-09-220-920-75		Sequence 75, Appl
45	212.5	40.2	94	9	US-09-220-920-17		Sequence 17, Appl

ALIGNMENTS

RESULT 1

US-09-220-920-15
; Sequence 15, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Attemin, A No. US20020002269A1 Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220, 920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
; LENGTH: 96
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-920-15

Query Match 100.0%; Score 529; DB 9; Length 96;
Best Local Similarity 100.0%; Pred. No. 2.3e-46;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db	1	ALSGPCQLWSLTLSVAELGLGVASEEKVIFRYCAGSCPRGARTQHG LALRLQGGRAGH 60
Qy	61	GPCCPRTYTDVAFLLDRHRWQRLPQLSAAACGGCGG 96
Db	61	GPCCPRTYTDVAFLLDRHRWQRLPQLSAAACGGCGG 96

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RESULT 2
US-09-813-398-41
; Sequence 41, Application US/09813398
; Patent No. US2002016929A1
; GENERAL INFORMATION:
; APPLICANT: Bruce D. Weintraub
; APPLICANT: Mariusz W. Szkludinski
; APPLICANT: University of Maryland
; TITLE OF INVENTION: CYSTINE KNOT GROWTH FACTOR MUTANTS
; FILE REFERENCE: USFMD.003C1
; CURRENT APPLICATION NUMBER: US/09/813,398
; CURRENT FILING DATE: 2001-03-20
; PRIOR APPLICATION NUMBER: PCT/US99/05908
; PRIOR FILING DATE: 1999-03-19
; PRIOR APPLICATION NUMBER: PCT/US98/19772
; PRIOR FILING DATE: 1998-09-22
; NUMBER OF SEQ ID NOS: 41
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 41
; LENGTH: 157
; TYPE: PRT
; ORGANISM: HOMO SAPIEN
09-813-398-41

Query Match          100.0%; Score 529; DB 10; Length 157;
Best Local Similarity 100.0%; Pred. No. 3.8e-46;
Matches 96; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 62 ALSGPCQLWSLTLVAELGLGYASEEKVIFRYCAGSCPRGARTQHG LALARLQGGRAHG 121
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QY 61 GPCCRPTRYTDVAFDDRRHWRLPQLSAACGCGG 96
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Db 122 GPCCRPTRYTDVAFDDRRHWRLPQLSAACGCGG 157
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RESULT 3
US-09-220-920-18
; Sequence 18, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. US20020002269A1el Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 18
; LENGTH: 89
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-920-18

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Best Local Similarity 100.0%; Pred. No. 1.2e-42;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 66 PRTYTDVAFDDRRHWRLPQLSAACGCG 94
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Db 61 PRTYTDVAFDDRRHWRLPQLSAACGCG 89
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RESULT 4
US-09-800-729-101
; Sequence 101, Application US/09800729
; Patent No. US20020068319A1
; GENERAL INFORMATION:
; APPLICANT: Ni et al.
; TITLE OF INVENTION: 32 Human secreted proteins
; FILE REFERENCE: PZ044P1
; CURRENT APPLICATION NUMBER: US/09/800,729
; CURRENT FILING DATE: 2001-03-08
; PRIOR APPLICATION NUMBER: PCT/US00/26013
; PRIOR FILING DATE: 2000-09-22
; PRIOR APPLICATION NUMBER: 60/155,709
; PRIOR FILING DATE: 1999-09-24
; NUMBER OF SEQ ID NOS: 217
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 101
; LENGTH: 183
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (86)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; NAME/KEY: SITE
; LOCATION: (146)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-800-729-101

Query Match          60.9%; Score 322; DB 9; Length 183;
Best Local Similarity 65.7%; Pred. No. 3.8e-25;
Matches 65; Conservative 2; Mismatches 22; Indels 10; Gaps 3;

QY 5 PCQLWSL-----TLVAELGLGYASEEKVIFRYCAGSCPRGARTQHG LALARLQGGCGR 57
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Db 88 PSFVMSMPAVEDPVGRRAPGLRLIGE--VIFRYCAGSCPRGARTQHG LALARLQGGCGR 145
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QY 58 AHGGCCCRPTRYTDVAFDDRRHWRLPQLSAACGCGG 96
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Db 146 XHGGCCCRPTRYTDVAFDDRRHWRLPQLSAACGCGG 183
|||||

RESULT 5
US-09-220-920-34
; Sequence 34, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. US20020002269A1el Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 34
; LENGTH: 113
; TYPE: PRT
; ORGANISM: MURINE
US-09-220-920-34

Query Match          44.1%; Score 233.5; DB 9; Length 113;
Best Local Similarity 48.5%; Pred. No. 2.1e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2;
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QY 6 CQLWSLTSLVAELGLGVASEKVIIFYCAGSCPRGARTQHGLALARLQGG-----R 57
Db 16 CLRSLQVPVYSALGLGHSSDELIFRFGSGC-RRARSQHDLSLASLLGAGALRSPGSR 74
QY 58 AHGGPCCRPRYTDVAFDDRHWRQLPQLSAACGCGG 96
Db 75 PISQPCCRPRYEAVSFMDVNSTWRTVDHLSATACGCLG 113

RESULT 6
US-09-220-920-35
; Sequence 35, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Balch, Robert H.
; TITLE OF INVENTION: Artemin, A No. US20020002269A1e1 Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 35
; LENGTH: 116
; TYPE: PRT
; ORGANISM: MURINE
US-09-220-920-35

Query Match 44.1%; Score 233.5; DB 9; Length 116;
Best Local Similarity 48.5%; Pred. No. 2.1e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2;

QY 6 CQLWSLTSLVAELGLGVASEKVIIFYCAGSCPRGARTQHGLALARLQGG-----R 57
Db 19 CLRSLQVPVYSALGLGHSSDELIFRFGSGC-RRARSQHDLSLASLLGAGALRSPGSR 77
QY 58 AHGGPCCRPRYTDVAFDDRHWRQLPQLSAACGCGG 96
Db 78 PISQPCCRPRYEAVSFMDVNSTWRTVDHLSATACGCLG 116

RESULT 7
US-09-220-920-36
; Sequence 36, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Balch, Robert H.
; TITLE OF INVENTION: Artemin, A No. US20020002269A1e1 Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn ver. 2.0
; SEQ ID NO 36
; LENGTH: 144
; TYPE: PRT
; ORGANISM: MURINE
US-09-220-920-36

Query Match 44.1%; Score 233.5; DB 9; Length 144;

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Best Local Similarity 48.5%; Pred. No. 2.7e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2

QY 6 COLWSLTLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGLAARLOGQG-----R 57
Db 47 CLRRLSQQLVPVSAALGLGHSSDLIRFRFCGSC-RRARSQHDLSLASLLGAGALRPPGSR 105
QY 58 AHGPGCCRPTRYTDOAFVFLDDRHRWQRLPQLSAAACGGG 96
Db 106 PISQPCCRPRTRYEAVSFMDVNSTWRTVDHLSATACGCLG 144

RESULT 8
US-09-220-920-41
; Sequence 41, Application US/09220920
; Patent No. US2002002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. US2002002269A1el Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 41
; LENGTH: 185
; TYPE: PRT
; ORGANISM: MURINE
US-09-220-920-41

Query Match 44.1%; Score 233.5; DB 9; Length 185;
Best Local Similarity 48.5%; Pred. No. 3.4e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2

QY 6 COLWSLTLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGLAARLOGQG-----R 57
Db 88 CLRRLSQQLVPVSAALGLGHSSDLIRFRFCGSC-RRARSQHDLSLASLLGAGALRPPGSR 146
QY 58 AHGPGCCRPTRYTDOAFVFLDDRHRWQRLPQLSAAACGGG 96
Db 147 PISQPCCRPRTRYEAVSFMDVNSTWRTVDHLSATACGCLG 185

RESULT 9
US-09-804-615-2
; Sequence 2, Application US/09804615
; Patent No. US20020055467A1
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Wen-Yee Saw, Dinah
; TITLE OF INVENTION: No. US20020055467A1el Neurotrophic Factors
; FILE REFERENCE: No. US20020055467A1el Neurotrophic Factors
; CURRENT APPLICATION NUMBER: US/09/804,615
; CURRENT FILING DATE: 2001-03-12
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06

```

```

Best Local Similarity 48.5%; Pred. No. 2.7e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2

QY 6 COLWSLTLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGLARLOGQG-----R 57
Db 47 CLRRLSQQLVPVSAALGLGHSSDLIRFRFCGSC-RRARSQHDLSLASLLGAGALRPPGSR 105
QY 58 AHGPGCCRPTRYTDOAVFLDDRHRWQRLPQLSAAACGGG 96
Db 106 PISQPCCRPRTRYEAVSFMDVNSTWRTVDHLSATACGCLG 144

RESULT 8
US-09-220-920-41
; Sequence 41, Application US/09220920
; Patent No. US2002002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. US2002002269A1el Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 41
; LENGTH: 185
; TYPE: PRT
; ORGANISM: MURINE
US-09-220-920-41

Query Match 44.1%; Score 233.5; DB 9; Length 185;
Best Local Similarity 48.5%; Pred. No. 3.4e-16;
Matches 48; Conservative 15; Mismatches 27; Indels 9; Gaps 2

QY 6 COLWSLTLVAELGLGVASEEKVIFRYCAGSCPRGARTQHGLARLOGQG-----R 57
Db 88 CLRRLSQQLVPVSAALGLGHSSDLIRFRFCGSC-RRARSQHDLSLASLLGAGALRPPGSR 146
QY 58 AHGPGCCRPTRYTDOAVFLDDRHRWQRLPQLSAAACGGG 96
Db 147 PISQPCCRPRTRYEAVSFMDVNSTWRTVDHLSATACGCLG 185

RESULT 9
US-09-804-615-2
; Sequence 2, Application US/09804615
; Patent No. US20020055467A1
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Wen-Yee Saw, Dinah
; TITLE OF INVENTION: No. US20020055467A1el Neurotrophic Factors
; FILE REFERENCE: No. US20020055467A1el Neurotrophic Factors
; CURRENT APPLICATION NUMBER: US/09/804,615
; CURRENT FILING DATE: 2001-03-12
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06

```



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US-09-804-615-34
; Sequence 34, Application US/09804615
; Patent No. US20020055467A1
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Wen-Yee Saw, Dinah
; TITLE OF INVENTION: No. US20020055467A1el Neurotrophic Factors
; FILE REFERENCE: No. US20020055467A1el Neurotrophic Factors
; CURRENT APPLICATION NUMBER: US/09/804,615
; CURRENT FILING DATE: 2001-03-12
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06
; PRIOR APPLICATION NUMBER: U.S.S.N 09/347,613
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 34
; LENGTH: 224
; TYPE: PRT
; ORGANISM: Rattus sp.
US-09-804-615-34

Query Match 43.0%; Score 227.5; DB 9; Length 224;
Best Local Similarity 47.5%; Pred. No. 1.7e-15;
Matches 47; Conservative 15; Mismatches 28; Indels 9; Gaps 2;

QY 6 COLWSLTLVSAELGLGYASEEKVIFRYCAGSCPRGARTQHGLARLQGG-----R 57
DB 127 CLRSQLVPVRAIGLGHRSDELVRFCGSC-RRARSPHDLASLLGAGALRPPGSR 185
QY 58 AHGGPCCRPRTRYDVAFLDDRHWQRLPOLSAACGCGG 96
DB 186 PISQPCCRPRTRYEAVSFMDVNSTWRTVDRLSATACGCLG 224

US-09-220-920-3
; Sequence 3, Application US/09220920
; Patent No. US20020002269A1
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. US20020002269A1el Neurotrophic Factor
; FILE REFERENCE: 6029-7996
; CURRENT APPLICATION NUMBER: US/09/220,920
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 113
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-920-3

Query Match 42.6%; Score 225.5; DB 9; Length 113;
Best Local Similarity 48.5%; Pred. No. 1.3e-15;
Matches 48; Conservative 13; Mismatches 29; Indels 9; Gaps 2;

QY 6 COLWSLTLVSAELGLGYASEEKVIFRYCAGSCPRGARTQHGLARLQGG-----R 57
DB 16 CLRSQLVPVRAIGLGHRSDELVRFCGSC-RRARSPHDLASLLGAGALRPPGSR 74
QY 58 AHGGPCCRPRTRYDVAFLDDRHWQRLPOLSAACGCGG 96
DB 75 PVSQPCCRPRTRYEAVSFMDVNSTWRTVDRLSATACGCLG 113

US-09-804-615-12
; Sequence 12, Application US/09804615
; Patent No. US20020055467A1
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Wen-Yee Saw, Dinah
; TITLE OF INVENTION: No. US20020055467A1el Neurotrophic Factors
; FILE REFERENCE: No. US20020055467A1el Neurotrophic Factors
; CURRENT APPLICATION NUMBER: US/09/804,615
; CURRENT FILING DATE: 2001-03-12
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06
; PRIOR APPLICATION NUMBER: U.S.S.N 09/347,613
; PRIOR FILING DATE: 1999-07-02
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 113
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-804-615-12

Query Match 42.6%; Score 225.5; DB 9; Length 113;
Best Local Similarity 48.5%; Pred. No. 1.3e-15;
Matches 48; Conservative 13; Mismatches 29; Indels 9; Gaps 2;

QY 6 COLWSLTLVSAELGLGYASEEKVIFRYCAGSCPRGARTQHGLARLQGG-----R 57
DB 16 CLRSQLVPVRAIGLGHRSDELVRFCGSC-RRARSPHDLASLLGAGALRPPGSR 74
QY 58 AHGGPCCRPRTRYDVAFLDDRHWQRLPOLSAACGCGG 96
DB 75 PVSQPCCRPRTRYEAVSFMDVNSTWRTVDRLSATACGCLG 113

Search completed: September 9, 2003, 22:26:56
Job time : 32 secs
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=> s persephin

L1 208 PERSEPHIN

=> s l1 (20a) antibod###

L2 12 L1 (20A) ANTIBOD###

=> duplicate remove

ENTER L# LIST OR (END):12

DUPLICATE PREFERENCE IS 'USPATFULL, PCTFULL'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L2

L3 12 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=> d 1-12

L3 ANSWER 1 OF 12 USPATFULL on STN

AN 2002:213408 USPATFULL

TI Methods of increasing distribution of therapeutic agents

IN Bankiewicz, Krysz, Piedmont, CA, UNITED STATES

Hamilton, John, Washington, DC, UNITED STATES

Oldfield, Edward, Philomont, VA, UNITED STATES

Phillips, Heidi, Palo Alto, CA, UNITED STATES

PI US 2002114780 A1 20020822

AI US 2001-999203 A1 20011130 (9)

PRAI US 2000-250286P 20001130 (60)

DT Utility

FS APPLICATION

LN.CNT 942

INCL INCLM: 424/085.100

INCLS: 514/056.000

NCL NCLM: 424/085.100

NCLS: 514/056.000

IC [7]

ICM: A61K038-19

ICS: A61K031-727

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 12 USPATFULL on STN

AN 2002:4289 USPATFULL

TI ARTEMIN, A NEUROTROPHIC FACTOR

IN MILBRANDT, JEFFREY D., ST LOUIS, MO, UNITED STATES

BALOH, ROBERT H., ST LOUIS, MO, UNITED STATES

PI US 2002002269 A1 20020103

AI US 1998-220920 A1 19981224 (9)

RLI Division of Ser. No. US 1998-218698, filed on 22 Dec 1998, PENDING

Continuation-in-part of Ser. No. US 1998-163283, filed on 29 Sep 1998,

ABANDONED

PRAI US 1998-108148P 19981112 (60)

DT Utility

FS APPLICATION

LN.CNT 2669

INCL INCLM: 530/351.000

INCLS: 530/839.000; 530/324.000; 536/023.510; 514/012.000; 435/320.100;

435/325.000; 514/044.000; 530/387.900; 530/388.240; 435/007.100;

435/006.000

NCL NCLM: 530/351.000

NCLS: 530/839.000; 530/324.000; 536/023.510; 514/012.000; 435/320.100;

435/325.000; 514/044.000; 530/387.900; 530/388.240; 435/007.100;

435/006.000

IC [7]

ICM: C12Q001-68

ICS: G01N033-53; A61K038-00; C07H021-04; A61K031-70; A01N043-04;

A61K045-00; C12N015-00; C12N015-09; C12N015-63

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 3 OF 12 USPATFULL on STN

AN 2002:136782 USPATFULL

TI Polynucleotides encoding persephin and related growth factors

IN Johnson, Jr., Eugene M., St. Louis, MO, United States

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Milbrandt, Jeffrey D., St. Louis, MO, United States
Kotzbauer, Paul T., Swarthmore, PA, United States
Lampe, Patricia A., St. Louis, MO, United States
PA Washington University, St. Louis, MO, United States (U.S. corporation)
PI US 6403335 B1 20020611
AI US 1998-128026 19980731 (9)
RLI Division of Ser. No. US 981739, now patented, Pat. No. US 6232449
Continuation-in-part of Ser. No. US 1996-615944, filed on 14 Mar 1996,
now abandoned
DT Utility
FS GRANTED
LN.CNT 3796
INCL INCLM: 435/069.400
INCLS: 435/320.000; 435/325.000; 435/252.300; 536/023.510
NCL NCLM: 435/069.400
NCLS: 435/252.300; 435/320.100; 435/325.000; 536/023.510
IC [7]
ICM: C12N015-18
ICS: C12N015-85; C12N015-63
EXF 536/23.51; 435/69.4; 435/320.1; 435/325; 435/252.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 4 OF 12 USPATFULL on STN
AN 2001:147751 USPATFULL
TI Artemin, a novel neurotrophic factor
IN Milbrandt, Jeffrey D., St. Louis, MO, United States
Baloh, Robert H., St. Louis, MO, United States
PA Washington University, St. Louis, MO, United States (U.S. corporation)
PI US 6284540 B1 20010904
AI US 1998-220528 19981224 (9)
RLI Division of Ser. No. US 1998-218698, filed on 22 Dec 1998
Continuation-in-part of Ser. No. US 1998-163283, filed on 29 Sep 1998
PRAI US 1998-108148P 19981112 (60)
DT Utility
FS GRANTED
LN.CNT 2590
INCL INCLM: 435/455.000
INCLS: 435/320.100; 435/325.000; 435/366.000; 435/368.000; 435/383.000;
435/384.000; 536/023.500
NCL NCLM: 435/455.000
NCLS: 435/320.100; 435/325.000; 435/366.000; 435/368.000; 435/383.000;
435/384.000; 536/023.500
IC [7]
ICM: C12N005-00
ICS: C12N005-08; C12N015-63; C12N015-85; C07H021-04
EXF 530/350; 514/44; 435/4; 435/320.1; 435/5; 435/29; 536/23.5
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 5 OF 12 USPATFULL on STN
AN 2001:71683 USPATFULL
TI Persephin and related growth factors
IN Johnson, Jr., Eugene M., St. Louis, MO, United States
Milbrandt, Jeffrey D., St. Louis, MO, United States
Kotzbauer, Paul T., Swarthmore, PA, United States
Lampe, Patricia A., St. Louis, MO, United States
PA Washington University, St. Louis, MO, United States (U.S. corporation)
PI US 6232449 B1 20010515
WO 9733911 19970918
AI US 1998-981739 19980831 (8)
WO 1997-US3461 19970314
19980831 PCT 371 date
19980831 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1996-615944, filed on 14 Mar 1996,
now abandoned
DT Utility
FS Granted
LN.CNT 3790
INCL INCLM: 530/399.000
INCLS: 530/350.000

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NCL NCLM: 530/399.000
NCLS: 530/350.000
IC [7]
ICM: C07K014-48
EXF 530/350; 530/399; 930/20
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 6 OF 12 USPATFULL on STN
AN 2001:60041 USPATFULL
TI Persephin and related growth factors
IN Johnson, Eugene M., St. Louis, MO, United States
Milbrandt, Jeffrey D., St. Louis, MO, United States
Kotzbauer, Paul T., Aston, PA, United States
Lampe, Patricia A., St. Louis, MO, United States
Klein, Robert, Palo Alto, CA, United States
DeSavage, Fred, Foster City, CA, United States
PA Washington University, St. Louis, MO, United States (U.S. corporation)
PI US 6222022 B1 20010424
AI US 1997-931858 19970916 (8)
RLI Continuation-in-part of Ser. No. US 1997-881172, filed on 23 Jun 1997,
now abandoned Continuation-in-part of Ser. No. WO 1997-US3461, filed on
14 Mar 1997 Continuation-in-part of Ser. No. US 1996-615944, filed on 14
Mar 1996, now abandoned
DT Utility
FS Granted
LN.CNT 3733
INCL INCLM: 530/399.000
INCLS: 530/350.000; 930/120.000
NCL NCLM: 530/399.000
NCLS: 530/350.000; 930/120.000
IC [7]
ICM: C07K014-475
EXF 530/350; 530/399; 930/120
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
AN 2000018799 PCTFULL ED 20020515
TIEN ARTEMIN, A NOVEL NEUROTROPHIC FACTOR
TIFR L'ARTEMINE, UN NOUVEAU FACTEUR NEUROTROPHIQUE
IN MILBRANDT, Jeffrey, D.;
BALOH, Robert, H.
PA WASHINGTON UNIVERSITY;
MILBRANDT, Jeffrey, D.;
BALOH, Robert, H.
LA English
DT Patent
PI WO 2000018799 A1 20000406
DS W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE
LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI
CM GA GN GW ML MR NE SN TD TG
AI WO 1999-US22604 A 19990929
PRAI US 1998-09/163,283 19980929
US 1998-60/108,148 19981112
US 1998-09/218,698 19981222
ICM C07K014-47
ICS C07K014-475; C12N005-10; C12N015-12; C12N015-16; C12N015-63;
C12N015-64; A61K038-16; A61K038-17; A61K038-18; A61K039-395;
A61K048-00

L3 ANSWER 8 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
AN 2000006731 PCTFULL ED 20020515
TIEN PERSEPHIN ARF, A PROTEIN ENCODED BY UNSPLICED PERSEPHIN MRNA
TIFR LA PERSEPHINE ARF, PROTEINE CODEE PAR UN ARNM DE PERSEPHINE SANS
EPISSURE
IN JOHNSON, Eugene, M., Jr.;

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MILBRANDT, Jeffrey, D.;
 KOTZBAUER, Paul, T.;
 LAMPE, Patricia, A.;
 KLEIN, Robert;
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 PA WASHINGTON UNIVERSITY;
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 JOHNSON, Eugene, M., Jr.;
 MILBRANDT, Jeffrey, D.;
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 KLEIN, Robert;
 DE SAUVAGE, Fred
 LA English
 DT Patent
 PI WO 2000006731 A2 20000210
 DS W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
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 ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN
 GW ML MR NE SN TD TG
 AI WO 1999-US17277 A 19990730
 PRAI US 1998-09/126,799 19980731
 ICM C12N015-12
 ICS C12N015-11; C07K014-475; C07K016-22; C12Q001-68; G01N033-53
 L3 ANSWER 9 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
 AN 1999049039 PCTFULL ED 20020515
 TIEN GFRα3 AND ITS USES
 TIFR LE GFRα3 ET SES UTILISATIONS
 IN DE SAUVAGE, Frederic, J.;
 KLEIN, Robert, D.;
 PHILLIPS, Heidi, S.;
 ROSENTHAL, Arnon
 PA GENENTECH, INC.
 LA English
 DT Patent
 PI WO 9949039 A2 19990930
 DS W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
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 LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG
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 ML MR NE SN TD TG
 AI WO 1999-US6098 A 19990319
 PRAI US 1998-60/079,124 19980323
 US 1998-60/081,569 19980413
 ICM C12N015-12
 ICS C07K014-71; C12N015-85; C12N015-70; C12N015-81; C12N001-19;
 C12N005-10; C12N001-21; C07K019-00; C07K016-28; G01N033-68;
 C12Q001-42; A61K039-395
 L3 ANSWER 10 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
 AN 1999014235 PCTFULL ED 20020515
 TIEN PERSEPHIN AND RELATED GROWTH FACTORS
 TIFR PERSEPHINE ET FACTEURS DE CROISSANCE ASSOCIES
 IN JOHNSON, Eugene, M.;
 MILBRANDT, Jeffrey, D.;
 KOTZBAUER, Paul, T.;
 LAMPE, Patricia, A.;
 KLEIN, Robert;
 DeSAUVAGE, Fred
 PA WASHINGTON UNIVERSITY;
 JOHNSON, Eugene, M.;
 MILBRANDT, Jeffrey, D.;
 KOTZBAUER, Paul, T.;

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LAMPE, Patricia, A.;
 KLEIN, Robert;
 DeSAUVAGE, Fred
 LA English
 DT Patent
 PI WO 9914235 A1 19990325
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 IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN
 TD TG

AI WO 1998-US19163 A 19980915
 PRAI US 1997-08/931,858 19970916
 ICM C07K014-475
 ICS C07K016-26; C12N015-18; C12N015-85; C12N015-63; C07H021-00;
 A61K038-18; A61K048-00; C12Q001-68; G01N033-53; C12P019-34

L3 ANSWER 11 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
 AN 1998046622 PCTFULL ED 20020514
 TIEN RECEPTORS FOR TGF- β ; -RELATED NEUROTROPHIC FACTORS
 TIFR RECEPTEURS DES FACTEURS NEUROTROPHIQUES ASSOCIES AU TGF- β ;
 IN MILBRANDT, Jeffrey, D.;
 JOHNSON, Eugene, M., Jr.;
 BALOH, Robert, H.
 PA WASHINGTON UNIVERSITY;
 MILBRANDT, Jeffrey, D.;
 JOHNSON, Eugene, M., Jr.;
 BALOH, Robert, H.
 LA English
 DT Patent
 PI WO 9846622 A1 19981022
 DS W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI
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 TD TG

AI WO 1998-US7996 A 19980416
 PRAI US 1997-60/044,007 19970417
 US 1997-08/859,988 19970521
 ICM C07K001-00
 ICS C07K014-00; C07K016-00; C07K017-00; A61K038-24; A61K038-27;
 A23J001-00; C12P021-06; C12N005-00; C12N015-00; G01N033-00

L3 ANSWER 12 OF 12 PCTFULL COPYRIGHT 2003 Univentio on STN
 AN 1997033911 PCTFULL ED 20020514
 TIEN PERSEPHIN AND RELATED GROWTH FACTORS
 TIFR PERSEPHINE ET FACTEURS DE CROISSANCE ASSOCIES
 IN JOHNSON, Eugene, M., Jr.;
 MILBRANDT, Jeffrey, D.;
 KOTZBAUER, Paul, T.;
 LAMPE, Patricia, A.
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 MILBRANDT, Jeffrey, D.;
 KOTZBAUER, Paul, T.;
 LAMPE, Patricia, A.
 LA English
 DT Patent
 PI WO 9733911 A1 19970918
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 BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG
 CI CM GA GN ML MR NE SN TD TG

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PRAI US 1996-8/615,944 19960314
ICM C07K014-475
ICS C07K016-26; C12N015-18; C12N015-85; C12N015-63; C12N001-21;
C07H021-00; A61K038-18; A61K048-00; C12Q001-68; G01N033-53;
C12P019-34

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